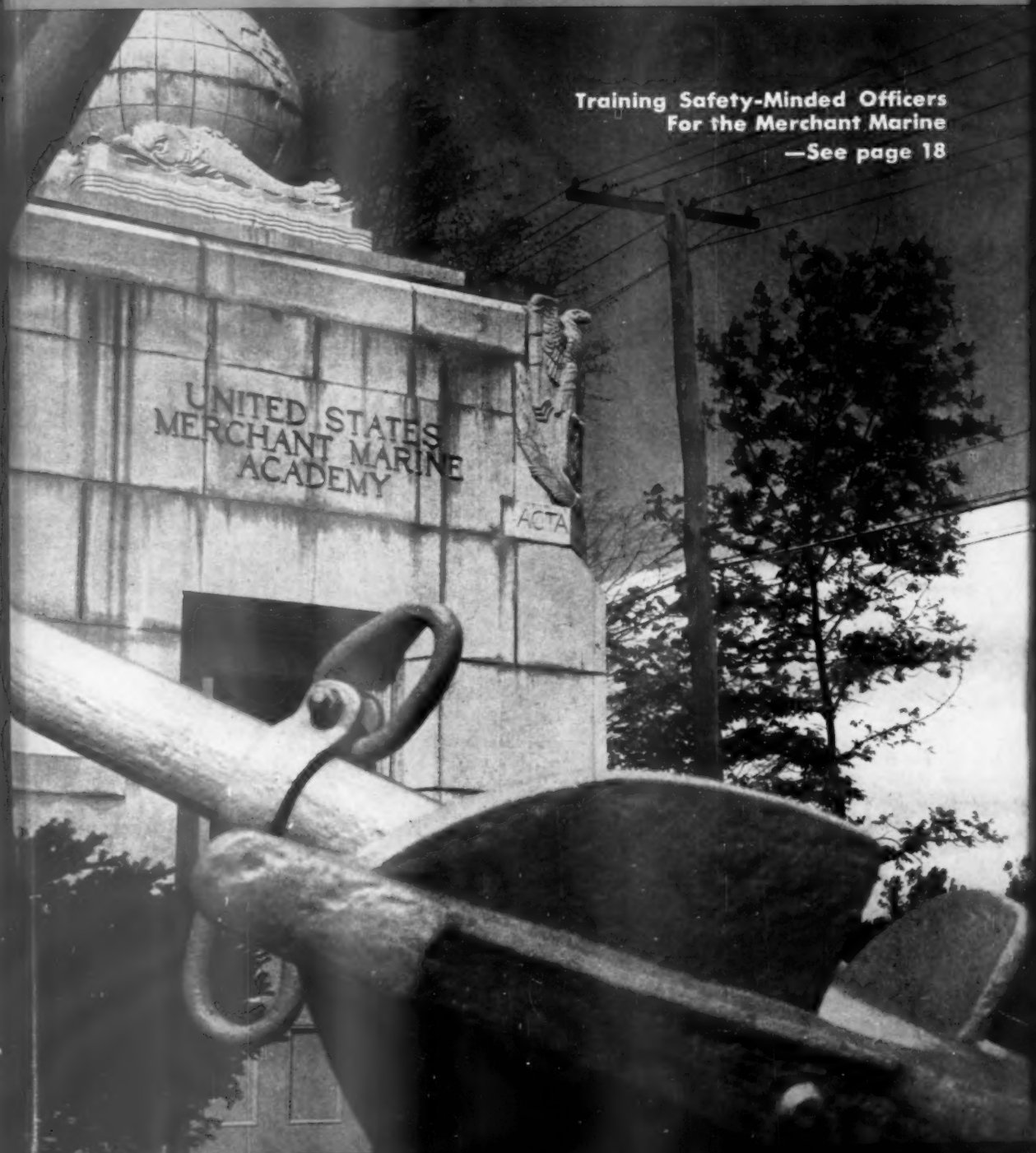


National Safety News

Training Safety-Minded Officers
For the Merchant Marine
—See page 18

UNITED STATES
MERCHANT MARINE
ACADEMY

ACTA



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OR WIRES

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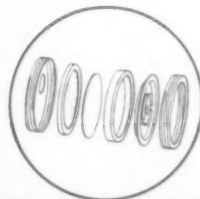
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*MonoGoggle**
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All You Need in Plastic Face
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Full face protection



These three types of protective devices, all with one-piece plastic lenses or visors and each with many variations, give you a wide selection to meet specific requirements of work hazards. Their light weight and comfortable fit insure workers' willingness to wear them for long hours on the job. Complete information on plastic protection and other eye and respiratory safety equipment is available in the new WILLSON catalog. Get your copy from our nearest distributor or write direct to WILLSON PRODUCTS, INC., 205 Washington Street, Reading, Pa.



*T.M. Reg. U.S. Pat. Off.

NATIONAL SAFETY NEWS



Published monthly by the
National Safety Council

APRIL, 1950

Vol. 61, No. 4

THE COVER: Vickery gate of the United States Merchant Marine Academy, at King's Point, L. I., N. Y., with an ancient anchor in the foreground. The excellent safety work done at the Academy is the subject of the article beginning on page 18.

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In This Issue . . .

MEN that go down to the sea in ships will find the mysteries of the deep less terrifying as the United States Merchant Marine Academy continues to train junior deck officers with the concept that safety aboard ship is an integral part of the science of navigation. (Page 18).

New records for accident-free production in 2500 plants in America's leading industries are revealed with the announcement of winners in the 1949 inter-plant safety contests. The losers are also winners! (Page 22).

Men delving deeply into Nature's most closely guarded secrets must be protected from unknown dangers as atomic science is developed. (Page 24).

As science involves more of the natural senses in developing media of mass communication, even the dumbest of us are exposed to impressions we can't help but absorb. Now safety education finds a new medium as GE uses TV to present a safety story. (Page 26).

If the plaster cast fits, then wear it! Our fictitious safety engineer turns an embarrassing situation to profitable ends in Bill Andrews' April installment of *The Diary of a Safety Engineer*. (Page 30).

What inner compulsion causes a sane man to devote his life to safety work? Industrial Safety Panel members discuss, "A Safety Man's Philosophy." (Page 34).

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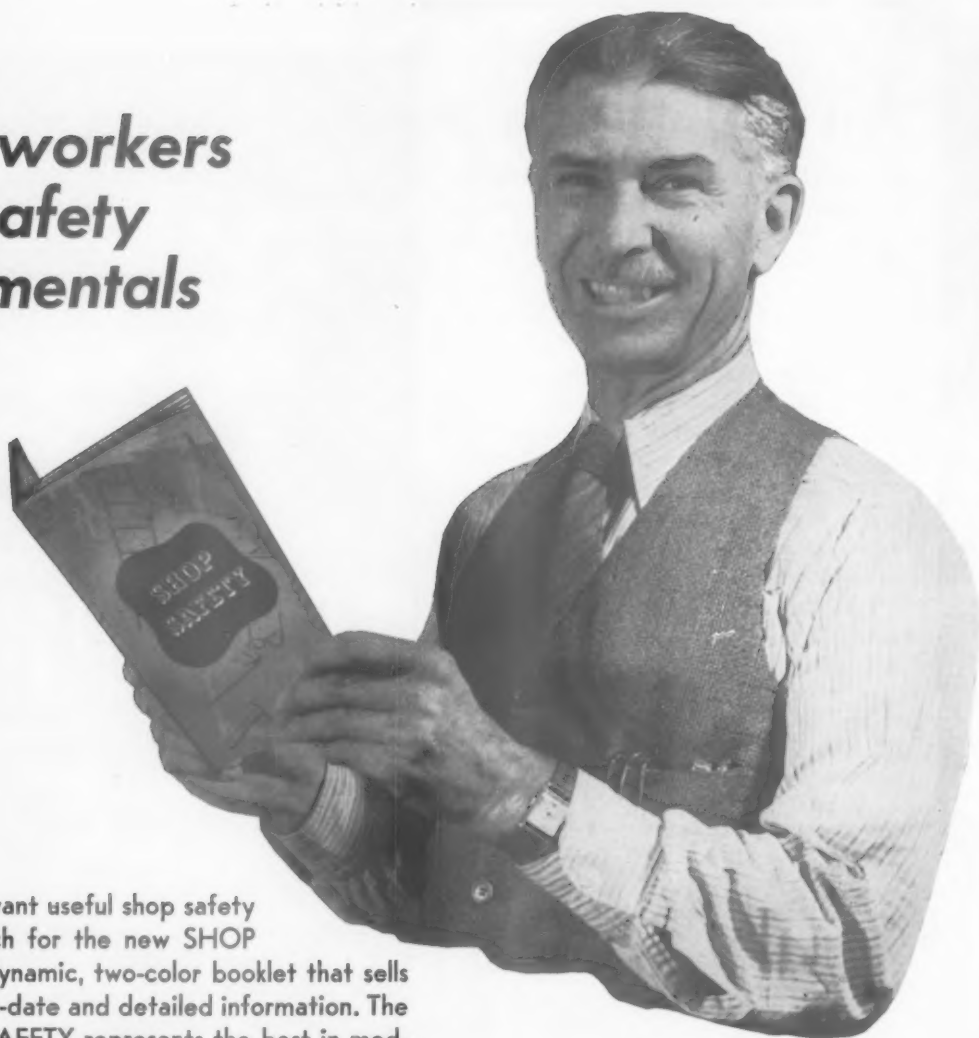
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CITY

(Write here any special ventilating problem you may have.)

teach workers shop safety fundamentals



Shop men who want useful shop safety information reach for the new SHOP SAFETY . . . a dynamic, two-color booklet that sells safety with up-to-date and detailed information. The revised SHOP SAFETY represents the best in modern training manuals. Uses a strong pictorial approach—packed with photographs, illustrations and cartoons—to put snap and sparkle into your shop hazards training.



SHOP SAFETY helps your men develop proper attitudes . . . gives your workers safety fundamentals in a simple orderly fashion without wasting any time. Has a durable cover that will take a real beating.

Order a copy for men with "sales resistance" to safety. And don't forget a copy for each new worker. Have your company name imprinted on the back and use it as an official company rule booklet.

SHOP SAFETY covers the use and care of hand tools, portable power tools • safe clothing, goggles, hand and foot protection • moving machinery • lifting, handling, and piling materials • power trucks and cranes • falls • good housekeeping, fire prevention and electrical hazards • precautions to use around machinery—making adjustments, oiling, guarding, proper dress, etc. • use of personnel protective equipment • and good health.

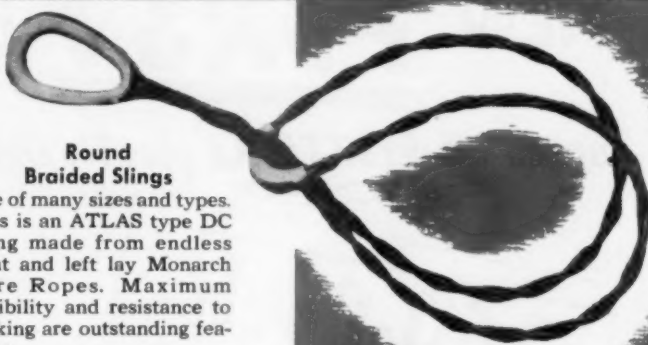
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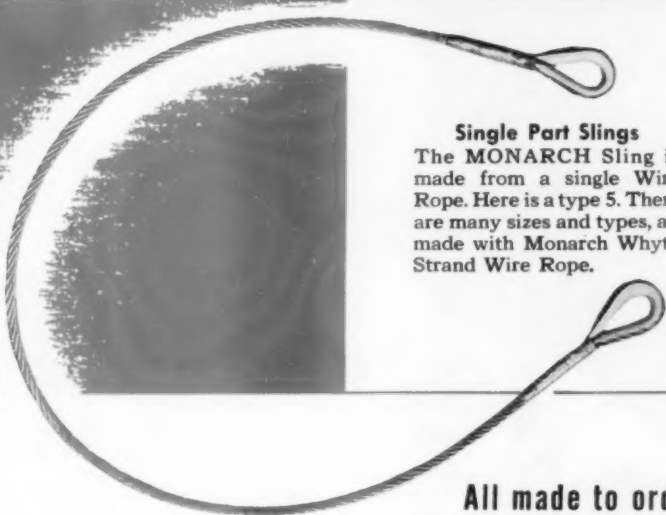


That's the right sling



Single Part Slings

The MONARCH Sling is made from a single Wire Rope. Here is a type 5. There are many sizes and types, all made with Monarch Whyte Strand Wire Rope.



For safe handling

All made to order for greatest safety

It pays to use slings made special to your order. Because Macwhyte Company makes a great variety of sizes and types in any length needed, you are assured of getting the best for your needs. Our sling engineers will give you the benefit of their experience in recommending slings for hundreds of satisfied users.

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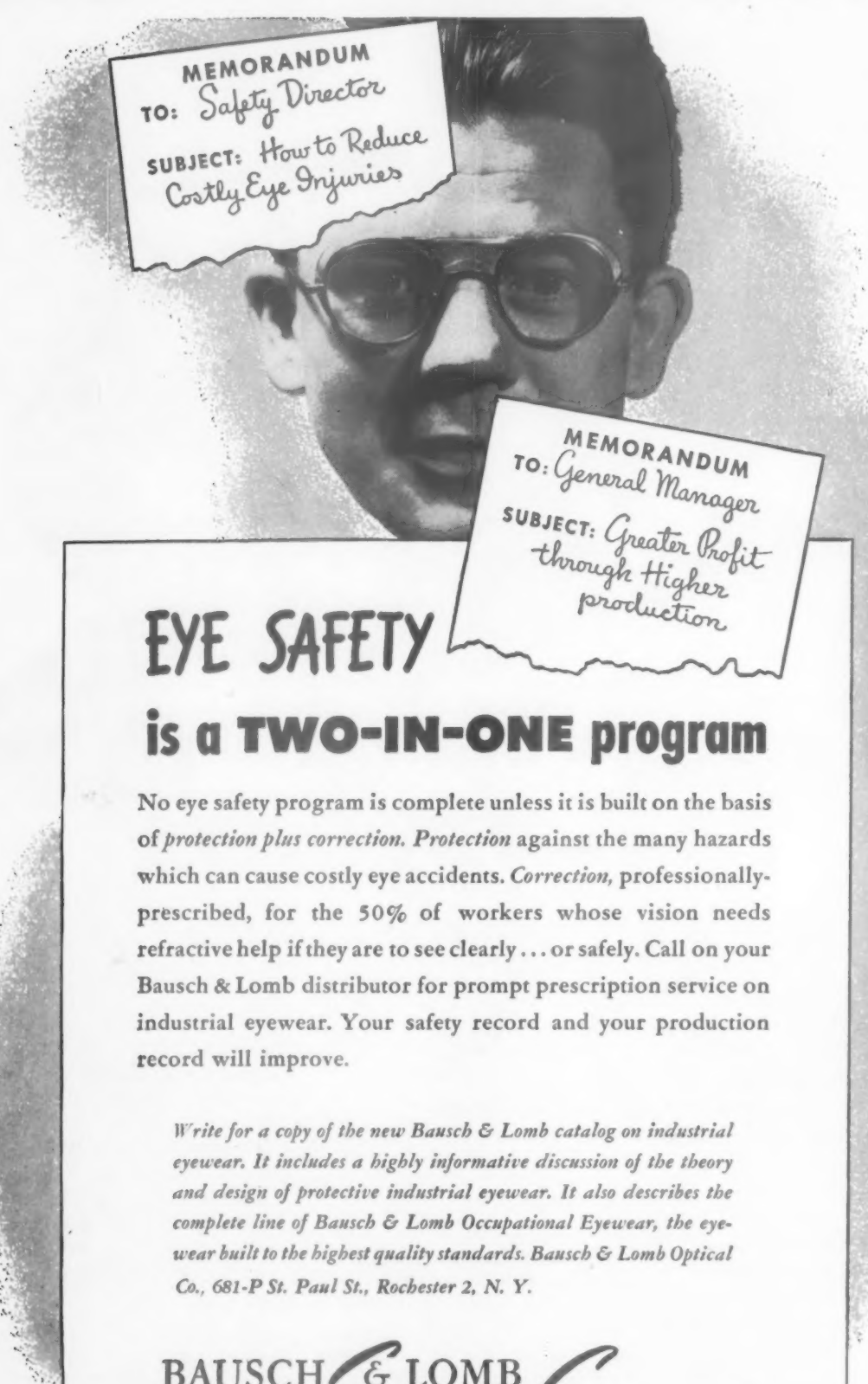
security, at age 65 for employees with twenty years' service. Many employees get pensions of substantially more than \$100 a month.

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BELL TELEPHONE SYSTEM





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TO: Safety Director
SUBJECT: How to Reduce
Costly Eye Injuries

MEMORANDUM
TO: General Manager
SUBJECT: Greater Profit
through Higher
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Safety Eyewear

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If you have a flammable liquid risk, we have the AER-O-FOAM system to protect it. Fires can't be scheduled . . . let us protect your plant now!



Heat test is applied to heat actuated device at beginning of full scale test



Progressive coverage by foam during test after 1 1/2 minutes

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Headquarters for Foam Fire Protection

WEST CHESTER, PENNSYLVANIA

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To help educate and safeguard those who work with machinery—to work safely—is the purpose of Stonehouse Machine Hazard Signs.

Like other Stonehouse Signs, these are made in accordance with American Standards Specifications . . . the only authentic standards.

STONEHOUSE SIGNS For Accident Prevention

Untold thousands of them are in use throughout Industry, helping to save lives, safeguard investment.

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Iron Age
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H. Childs & Co., Inc.

Pittsburgh 22, Pa.

No. 614
 Sizes 5-12
 Widths A-E



MERCUROCHROME*

(H. W. & D. BRAND OF MERBROMIN, DIBROMOXYMERCURIFLUORESCIN-SODIUM)

Do not neglect wounds, however small; even scratches and small cuts may become infected if they are not promptly and properly treated.

'Mercurochrome' (H. W. & D. brand of merbromin, dibromoxymercurifluorescein-sodium) is one of the best antiseptics for first aid use. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association for this purpose.

The 2% aqueous solution is not irritating or toxic in wounds; minor injuries are reported more promptly when 'Mercurochrome' is the routine antiseptic, because treatment is not painful.

'Mercurochrome' solution keeps indefinitely; the color shows where it has been applied.

Physicians have used 'Mercurochrome' for more than 28 years.

Be sure to include 'Mercurochrome' in your first aid supplies.

*Reg. U. S. Pat. Off



HYNSON, WESTCOTT & DUNNING, INC.



BALTIMORE, MARYLAND

This fire-extinguishing system saved \$800 a month

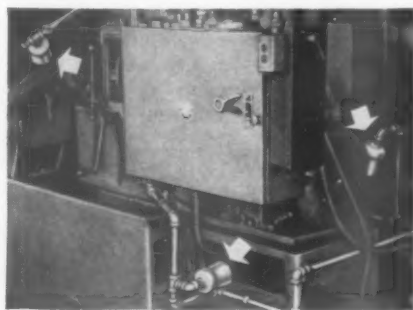
WE KNOW a big auto manufacturer who thinks of fire extinguishing systems as both protection and *production tools*.

In making valve stems they were using some automatic screw machines cooled by a light oil with a low flash point. Result—frequent fires! The company's chemical extinguishers put out the fires . . . but ruined the coolant and gummed up the machines. Result of this? There were from 16 hours to 3 days of lost time while the machines were cleaned and the oil replaced.

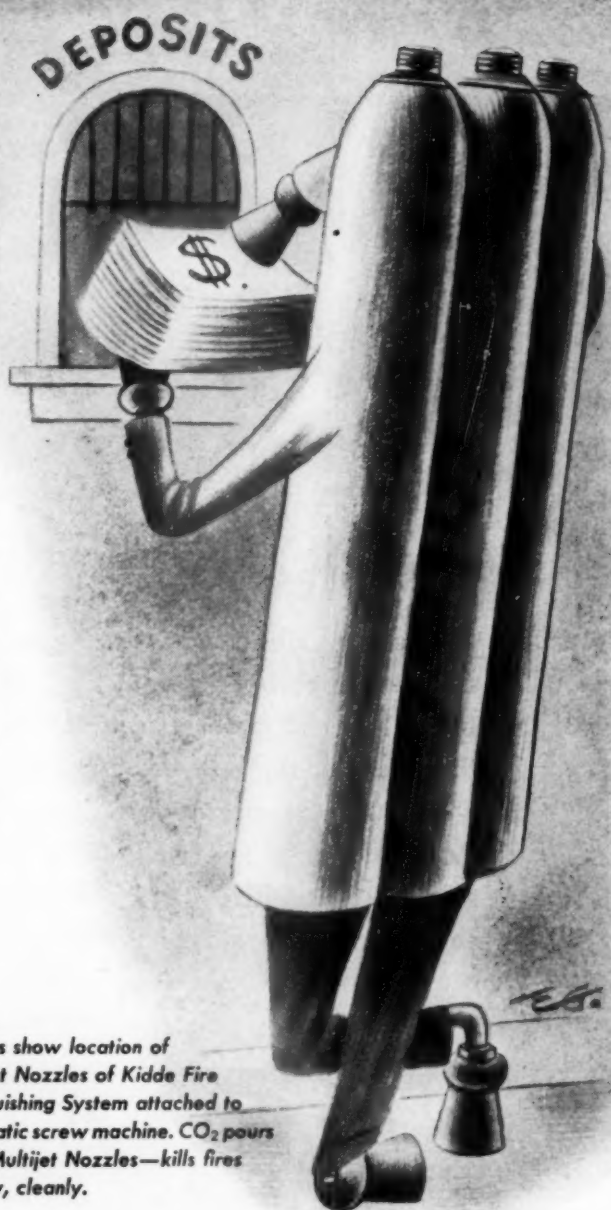
Finally *Kidde* extinguishing systems were installed. They detected and killed fires—automatically. Dry, clean, CO₂ smothered the flames quickly and effectively, then disappeared . . . leaving the oil unharmed and the machine clean as a whistle. *Downtime was cut to 1 hour!*

Company experts said that these *Kidde* systems, which cost \$800 apiece, each paid for itself in the first month . . . and kept right on saving \$800 a month, every month. They earned this money just as surely as if they were production tools.

If you'd like more information about these protection-giving production tools, write for complete information.



Arrows show location of Multijet Nozzles of Kidde Fire Extinguishing System attached to automatic screw machine. CO₂ pours from Multijet Nozzles—kills fires quickly, cleanly.



Walter Kidde & Company, Inc.
445 Main Street, Belleville 9, N. J.

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something **NEW**
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Another HY-TEST **PLUS**

Hy-Test Safety Shoes feature one piece Isco-nap vamp linings. Isco-nap assures long wear, lasting fit and air-conditioned comfort.

... Insure Workers' Feet in Sure Protection

with
HY-TEST  **SAFETY SHOES**

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NATIONAL SAFETY NEWS

APRIL, 1950

Congratulations to the Losers

THE winners of the national industrial safety contests are named on page 22 of this issue of NATIONAL SAFETY NEWS. Already meetings are being held by many companies, in many communities, to celebrate the winning of these top honors in accident prevention.

Here I want to congratulate the losers. A safety contest is one type of competition in which the true goal is not victory in the contest but progress toward human welfare and productive efficiency.

The participants in these contests—most of them losers under the contest rules—compiled a frequency rate of 8.04 disabling injuries per million man hours worked. This is the finest record ever produced in the long history of the contests. It is a gain of 25 per cent in the last two years.

I do not mean to minimize the achievements of the winning companies and plants. Their combined record was 10 times better than the average for all contestants.

But the important fact is that every participant in the contest won. As a group they have a record

twice as good as the general level of occupational accident rates, nationwide, and they show every sign of carrying on toward better and better records.

In one special way, the losers have an advantage over the winners. They escape the temptation that always goes with success to relax and to assume that their problem is conquered. They have the challenge put to them in sharp and unmistakable terms—the challenge provided by even better records than their own in industrial plants of comparable size and class.

It is, of course, true that those who benefit the most from these contests are neither the winners nor losers. They are the American people, who have been well served by that segment of industry which is alert to its accident prevention responsibilities.

To all of you participants—my heartiest congratulations, and my sincere hope and belief that the records you have so far produced will in their turn be broken as, year by year, our contests become harder to win—and more and more impossible to lose.

Ned H. Dearborn



Looking across Formation Square toward Delano Hall, United States Merchant Marine Academy, Kings Point, L. I., New York.



Training Safety-Minded Officers for the Merchant Marine

By **COMMANDER PEDER GALD, USMS**
and
COMMANDER L. S. McCREADY, USMS

RECOGNITION of the importance of safety aboard ship is steadily increasing. The United States Merchant Marine Academy is keeping pace with that trend and feels that it can assist in improving conditions on shipboard by supplying to the industry alert, safety-minded junior deck officers.

Through both theoretical and practical instruction the Academy's Department of Nautical Science and Department of Engineering are carrying on this important training.

In the Department of Nautical Science, safety instruction is integrated throughout the professional courses. It is treated from three points of view: (1) Safety of the ship; (2) Safety of the ship's tackle, equipment and cargo; (3) Safety of personnel.

It is recognized, of course, that these divisions are not sharply defined; often they are interrelated

and overlapping. It can readily be seen that neglect of safety of vital tackle or equipment may endanger

the ship and its personnel.

As standard reference material, instructors use "Accident Preven-



"Abandon ship!" Training drill prepares cadet-midshipmen for their lifeboat certificates as issued by the United States Coast Guard.

COMMANDER GALD is Head, Department of Nautical Science, and COMMANDER McCREADY is Head, Department of Engineering, U. S. Merchant Marine Academy, Kings Point, N. Y.

tion for Passenger and Cargo Vessels," and "Accident Prevention for Tank Ships," issued by the U.S.P. & I. Agency, Inc. These are supplemented by Bureau of Marine Operation Safety Bulletins, U. S. Maritime Commission, and Proceedings of the Merchant Marine Council, U. S. Coast Guard, which treats practical application of safety rules and studies of "Lessons from Casualties." The two latter references are circulated as published among the instructors to keep them posted on ship safety measures.

Incidentally, these series of articles were initiated by the superintendent of the Academy when he was chief of the Division of Casualty Investigation, Bureau of Marine Inspection, in 1939. These have been continued by the Coast Guard which subsequently assumed jurisdiction over the Bureau.

In its broader aspects, the safety of the ship is treated mainly under the subjects of navigation, applied naval architecture, and theoretical seamanship. Safe navigation, as the term implies, is the safe direction and conduct of the vessel from one point of the earth's surface to another. Case studies of unsafe navigational practices are analyzed to show the consequences of such violation.

In applied naval architecture courses, emphasis is placed on the

importance of water-tight integrity, and proper distribution of weights and liquids.

In theoretical seamanship, safety is treated from the point of view of proper watch standing and ship handling, as may be required because of existing conditions of wind and weather. Again, case studies are introduced to illustrate the consequences of safety violations and bad judgment. Each study is concluded with an improved solution of the problem under discussion.

The study of safety from the point of view of ship's tackle, equipment and cargo is made principally in the subjects of seamanship laboratory (practical), cargo, boat handling, and fire fighting. It includes care and maintenance of navigational equipment, ground tackle; cargo-handling equipment, such as booms, whips and blocks; securing of structural openings; and facilities for safety of a vessel at the loading berth or in the shipyard.

Safe handling and stowage of cargo are stressed throughout the entire cargo course. This includes a close study of current practices, with analysis of accidents to learn the contributing factors. With this knowledge it is possible to prescribe safer practices.

Safety of cargo is, of course, considered not only from the point

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Cadet-midshipmen in electrical laboratory receiving instruction on main propulsion control panel of turbo electric tanker.



Shop practice is an important part of the cadet-midshipman's training. Above is a wire-splicing class in the Department of Nautical Science.



Commander Peder Gald
USMS



Commander Lauren S. McCready
USMS



Now organized in 151 plants,
they are proving a valuable
incentive for eye protection.

By FLORENCE NELSON

Wise Owl Clubs MULTIPLY



JAMES LYONS, a worker at International Harvester Company's Tractor Works, lost his task one morning to get some stock from a nearby bin. As he passed by a grinder a four-pound casting that was being placed on the revolving surface grinding wheel hurtled through the air. It struck Lyons a tremendous blow



Top: James E. Hopping, General Electric employee, studies the Wise Owl Club membership in hospital. Hospital granted his eyes needed an explosion of knowledge.

Middle left: Hastings High School leads the first Wise Owl Club charter for a vocational high school. Here the school nurse is adjusting a student's safety glasses. Looking on, seated left to right, are Elmer Haddock and William A. Brown of the school faculty; standing, James E. Hopping, member, Hastings Board of Education; and Don Smith, Haddock Safety Products Company.

Middle right: A membership award presentation at the National Safety Congress in Chicago last October. James E. Lyons, left, International Harvester employee, receives his club pin from George L. Smith, club manager at American Cyanamid Co., Reading, Pa. The Wise Owl Clubs salute two women among their members. Mrs. Sam A. Jones, General employee of E. I. du Pont de Nemours & Co., 2nd Military Zone, receives membership.

across his left eye, knocking him unconscious.

In the hospital many hours later he revived sufficiently to learn what hit him. A long deep laceration in the region of his left eyebrow had required fourteen sutures; the lens of his plano goggles had been shattered. But his eye was as good as ever. Goggles had saved it.

During the National Safety Congress last fall Lyons and five other candidates from plants in the Chicago area were honored at a special ceremony in the grand ballroom of the Stevens Hotel. All these men had escaped loss of vision in serious industrial accidents because they wore eye protection—thus were eligible for membership in what someone has called the most exclusive club in the world—the Wise Owl Club of America.

Sponsored by the National Society for the Prevention of Blindness for little more than a year, the Wise Owl Club already has 151 chapters in industrial plants and one in a vocational

FLORENCE NELSON is associate for Industrial Service, National Society for the Prevention of Blindness, New York.

school. Seven hundred and seventy-seven men and four women have qualified for membership. Plants in 33 states and Canada, ranging in size from 100 to 19,000 employees, are included in the roster.

The story of the club's origin was told to NATIONAL SAFETY NEWS readers some months ago by F. H. Humphreys, for many years safety director of American Car and Foundry Company.

Joe Folks, a grinder in ACF's St. Louis Foundry, whose sight had been saved by goggles in several accidents during seventeen years' service, began wondering how many other ACF workers were as fortunate as himself. Joe wrote to the company's Safety Division. Couldn't they have an organization like the Army's Caterpillar Club—with membership limited to workers who saved an eye through wearing goggles?

Thus the Wise Owl Club was born. Its development by ACF was amazingly successful. Realizing that the idea was important to all safety men, the company about a year ago made a public-spirited decision and presented it for nation-wide sponsorship to NSPB.

Plant managers and safety engineers throughout the country have been quick to recognize the value of this new tool for strengthening eye protection programs. They like the simple procedure for setting up a club chapter in a plant, involving as it does a minimum of detail and expense. They particularly welcome the opportunity for giving recognition to employees who conscientiously wear prescribed eye protection on the job.

One of the club sponsors is Sperry Gyroscope Company in whose plant at Great Neck, Long Island, not a single eye has been lost since the inauguration of a vision program in 1944. A showcase with more than 30 badly mangled safety glasses at the plant indicates that at least a dozen eyes might have been sacrificed had not these employees been wearing proper eye protection.

"We consider this showcase a trophy case with each pair of glasses an individual trophy," wrote Dr. Raymond Murray, the company's medical director, in a recent issue of *The Sperry News*.

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Among these goggles is the pair which saved the eyes of A. J. Barrington. He was riding a lathe and through an open part in a mist of aluminum when the explosion occurred.

Edward Lohr, large burner in Sperry Company, Canby, Wis., saved his eyesight in goggles when a welded tang held back all forces and struck his nose, the head.



We proudly present

THE

HERE are the winners—the companies and plants which turned in the finest safety records in 11 industries in 1949!

They achieved their victories in the face of the stiffest competition in history. The 2500 entrants in the contest turned in a record-breaking low frequency rate of 8.04 disabling injuries per million man-hours worked.

The combined frequency rate for the winners was *one-tenth* that figure—0.83!

George W. Greenwood, safety director of Western Electric Co. and chairman of the National Safety Council's Industrial Conference committee on statistics and contests, declared,

"If the frequency rate for our contestants (not only winners, but all contestants) could be achieved in all occupations in this country, the occupational accident rate nationally would be cut in half. We would see a round million fewer work accidents every year!"

George A. Jacoby, director of personnel services of General Motors Corp. and chairman of the Council's Industrial Conference, commented,

"The most progressive section of American industry has, once again, demonstrated that we can add new and greater progress to the great achievements of the past. These companies have reduced the injury frequency rate for all entrants in these contests by 25 per cent in two years.

"It is the challenging responsibility of these companies to continue to improve, while, at the

same time, seeking to convince non-participating companies of the tremendous financial and human gains which active safety programs can bring to them."

And Ned H. Dearborn, president of the National Safety Council, added these words,

"The brilliant achievements of the winning companies and of the whole group of contest participants is a challenge to the whole nation. We are continuing to make great progress in industry—we must now redouble our efforts for safety in the homes, on the highways and on the farms, where the great majority of our accidents occur."

The companies listed below are those which will receive first place trophies according to the rules of the contest in their own industry. In seven of the contests, companies or plants tying for first place with perfect records receive duplicate first place trophies. In the Chemical, Petroleum, Textile and Transit contests, among establishments with perfect records, first place trophies are presented only to the one in each classification which had the largest man-hours exposure during the year.

Complete lists of all winners, plus second and third place winners and companies receiving certificates of merit or trophies for perfect records, appear in the contest bulletins being sent to all participating companies and plants. Each bulletin also contains a brief analysis of experience in the industry and a coded list permitting the non-winning companies to identify their own rec-

ord and compare it with others.

In addition to the contests named herein, competitions are also conducted by the Commercial Vehicle and Metals Sections of the Council. These contests operate on a fiscal year basis, July 1 to June 30.

TROPHY WINNERS

Aeronautical Industries Safety Contest

Consolidated Vultee Aircraft Corp., San Diego Div.

Chemical Section Safety Contest

E. I. du Pont de Nemours & Co., Martinsville Plant

E. I. du Pont de Nemours & Co., Doyle Works

E. I. du Pont de Nemours & Co., Grasselli Works

Carbide & Carbon Chemicals Div., Oak Ridge National Laboratory

Ansul Chemical Co., Marinette, Wis.

American Cyanamid—Davis & Geck, Inc., Brooklyn, N. Y.

American Cyanamid Co., Brewster, Fla.

Hercules Powder Co., Bacchus, Utah

Pennsylvania Salt Manufacturing Co., Whitmarsh Research Laboratories

Food Section Safety Contest

The Quaker Oats Company of Canada, Ltd., Peterboro, Ont., Can.

The Quaker Oats Company of Canada, Ltd., Saskatoon, Sask., Can.

Spartan Grain & Mill Company, Inc., Spartanburg Mills

Pillsbury Mills, Inc., Atchison, Kan.

WINNERS!

Complete list of first place trophy winners in 11 national industrial safety contests

International Milling Co., Detroit, Mich.

The Quaker Oats Co., Los Angeles, Calif.

General Mills, Inc., Flour Mills—Wichita Falls, Tex.

Ralston Purina Co., Circleville Branch

General Mills, Inc., Flour Mill—Oklahoma City, Okla.

Ralston Purina Co., Iowa Falls Branch

Ralston Purina Co., Denver Branch

International Milling Co., New Prague, Minn.

Pillsbury Mills, Inc., Feed & Soy Div., Clinton Feed Plant

General Mills, Inc., Flour Mill—Johnson City, Tenn.

General Mills, Inc., Flour Mill—Amarillo, Tex.

Pillsbury Mills, Inc., Feed & Soy Div., Clinton Soy Plant

The Quaker Oats Co., Portland, Ore.

Robin Hood Flour Mills, Ltd., Calgary, Alberta, Can.

General Mills, Inc., Flour Mill—El Reno, Okla.

Ralston Purina Co., Montreal Branch

Spartan Grain & Mill Company, Inc., Newberry Mill

Cooperative Mills, Inc., Norfolk, Va.

General Mills, Inc., Cereal Mill—Buffalo, N. Y.

Kellogg Co., Omaha, Neb.

National Biscuit Co., Minneapolis, Minn.

Ralston Purina Co., Battle Creek Branch

Conlon Baking Co., Charleston, W. Va.

General Mills, Inc., Cereal Mfg. Plant—Oskaloosa, Ia.

General Foods Corp., Maxwell House Tea Div., Brooklyn, N. Y.

General Mills, Inc., Cereal Mills—Purity Oats, Keokuk, Ia.

Peter Paul, Inc., Philadelphia Plant

National Biscuit Co., Dayton, Ohio

General Foods Corp., Minute Tapioca Plant

National Biscuit Co., Holland, Mich.

The Quaker Oats Co., Depew, N. Y.

Ralston Purina Co., Ry-Krisp Mill

National Biscuit Co., Portland, Ore.

National Biscuit Co., New Britain, Conn.

General Mills, Inc., Cereal Mill—Purity Oats, Minneapolis, Minn.

Interstate Bakeries Corp., Weber Baking Co., San Bernardino, Calif.

The Quaker Oats Co., Tecumseh, Mich.

Hydrox Corp., Chicago, Ill.

Southern Dairies, Norfolk, Va.

Kraft Foods Co., South Edmeston, N. Y.

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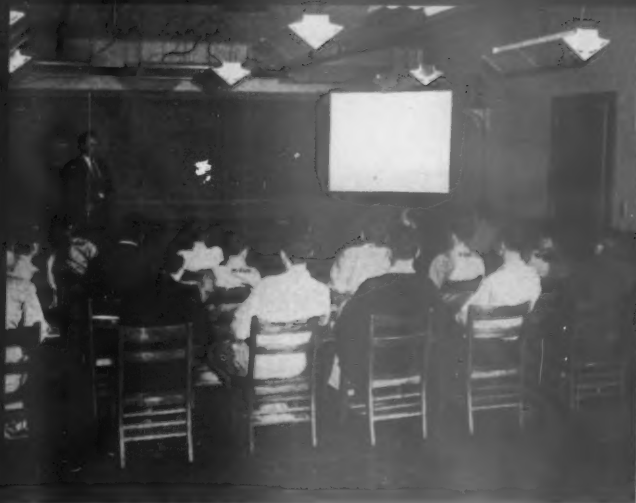
Ned H. Dearborn



George A. Jacoby



George W. Greenwood



Left: A health physics training class for personnel. Right: Urinalysis laboratory of the Health Physics Division.

Health Physics at Oak Ridge

By KARL Z. MORGAN

ALL life on our planet is bombarded constantly by ionizing radiation, consisting of cosmic radiation, produced by some unknown process out in the far reaches of space, and radiations from the more than 50 natural radioisotopes in the earth's crust.

The amount of this radiation exposure a man receives depends upon where he lives on the earth, and no evidence is available to indicate that this level of radiation exposure is harmful. Persons living in Denver are blasted by several times as much radiation as are people in Chicago because of the higher cosmic radiation at higher elevations and because the water and soil in Colorado contain more uranium products than are present in Illinois.

Man has not been able as yet to operate an atomic machine like that of the sun or the stars that combines the light elements to form those of intermediate mass. He cannot maintain the necessary

temperatures and pressures on the earth. However, on December 2, 1942, he did succeed in operating the first man-made chain-reacting atomic machine, called a pile or a reactor. A pile, as its name implies, consists of a pile of graphite blocks and uranium slugs arranged in such a manner that energy in the form of neutrons, alpha, beta, gamma, recoil atoms, neutrinos, and heat is given off under controlled conditions.

All the piles so far constructed have operated at low temperatures



Air and water discharged from laboratories is checked constantly for contamination. Right: air monitoring station.

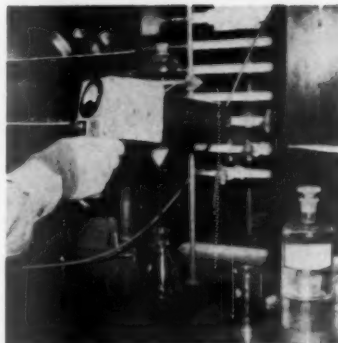
All protective clothing must be washed at the laboratory. Sometimes special chemicals must be used to remove radioisotopes. Afterwards they are checked to make sure radioactive contamination does not exceed safe levels. Beta and gamma activities are checked with Geiger counters and alpha activity with a proportional counter. Here technicians are checking laundered clothing.



DR. KARL Z. MORGAN is Director Health Physics Division, Oak Ridge National Laboratory, Oak Ridge, Tenn. This article has been adapted from a paper presented before the Chemical Section, 37th National Safety Congress.



Health physicist with complete covering of protective clothing and mask. Note thick cement walls of "hot" cells he is entering, also the monitron at his right which will warn if radiation reaches unsafe levels.



Health physics surveyor using "cutie pie" to determine safe working time in one of the laboratories.



Health physics surveyors taking mud and water samples from the White Oak Lake system in which water is held up until checked for dangerous contamination.

and were constructed for three principal functions:

1. Production of explosive material, plutonium.
2. As experimental units.

3. Production of fission products for hospitals and research laboratories.

The only requirements for piles to develop useful electrical power is for them to operate at higher temperatures. (The theoretical efficiency of any power system varies with the difference between the absolute temperature of the intake and exhaust gas of the engine divided by the absolute tem-

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Persons entering Oak Ridge National Laboratory picking up their meters from the racks in the portal building . . . Meters are read at the close of each shift and cases of appreciable



radiation exposure are investigated immediately. Right: Using hand and foot counter to check for contamination and a GM probe tube to check clothing

Station WRGB TV studio at Schenectady, N. Y., showing the set-up for a demonstration of safety as carried on at General Electric Research Laboratory.

TV Tells A Safety Story

AS a medium for telling the public about industry's safety work, television is still comparatively new but the few demonstrations telecast to date indicate its possibility.

Safety in a research laboratory was the theme of this demonstration put on by Howard H. Fawcett, safety engineer for the General Electric Research Laboratory, Schenectady, N. Y., and telecast from Station WRGB, Schenectady, January 30, 1950.

The following was transcribed from a wire recording made during the program. It is presented here with slight condensation.

* * *

Announcer — Good evening, ladies and gentlemen. Welcome once again to an excursion into the realm of science. Tonight, we are going to depart a little bit from our usual form which generally includes excursions into such parts of science as chemistry and physics. We are going to take up something of a slightly more practical nature—an excursion into the field of accident

prevention in research laboratories. To help us, we have with us our friend, Mr. Howard Fawcett, safety engineer of the G. E. Research Laboratory. Mr. Fawcett, concerning research laboratories, would you say that such establishments are particularly prone to have accidents?

Fawcett—Not necessarily. It so happens the accident experience of most industrial research laboratories is many times more favorable than that of all industry.

A.—How do you account for that? It seems as though they would be rather dangerous places to work.

F.—In spite of potential hazards, it happens that research laboratories are well aware of their hazards, and as a result apply a great many corrective measures and thought to ensure the safety of their employees as well as of their over-all operation.

A.—What measures would you say are particularly important in safety around the laboratory, Mr. Fawcett?

F.—Well, there are many—far more than we can talk about tonight, but I have brought along three specific demonstrations to give you some idea of the accident prevention work actually carried on.

A.—I'd like to see how they work.

F.—The first is eye protection. In our laboratory, as in every industrial laboratory, we pay a great deal of attention to the protection of our workers' eyes. You can readily understand how important that would be.

A. — Easily understandable in a business like that.

F.—We have many types of eye protection, but probably none is any simpler and at the same time more effective than safety glasses of the type I am wearing and the type I have in my hand.

A.—They seem like regular glasses, Mr. Fawcett — a little heavier, perhaps, than the average.

F.—At the first glance that is exactly true. But safety glasses have been through a special hardening technique which makes them much more resistant to breakage than ordinary glasses, hence they are named safety glasses.

A.—You say, much more resistant to breakage. By that do you mean they are twice as strong, three times as strong, something like that?

F.—Well, we have a little instrument here. Let's try an experiment and see for ourselves. The heart of this experiment is an ordinary iron ball. That ball — how much do you think it weighs?

A.—A couple of pounds.

F.—Twenty ounces.

A.—Twenty ounces. It is quite a lot anyway.

F.—This pair of glasses has an

ordinary untempered lens in the one side and a safety glass lens in the other side. So let's put it in our machine which is simply a method of guiding the ball to the glass lens. First, let's insert the ordinary lens. We bring the ball in from the top, controlling it on the way down. Here is 3 inches. We will drop the 20 ounce ball through a distance of 3 inches, and it is obvious that the lens which was ordinary glass broke completely.

A.—Nothing to it at all. Do they always break that easily, Mr. Fawcett? I presume you have done this before.

F.—Ordinary glass will break very easily. Our safety glass, on the other hand, of which the companion lens in this particular pair is made, will tell us quite a different story. We'll start first at the 3 inch mark which broke the other lens. You see, they bounce. Let's double that—6 inches.

A.—This is rugged stuff. Where are we now?

F.—Nine inches.

A.—Try a foot.

F.—Twelve inches.

A.—Not a crack in them — doing fine.

F.—Fifteen inches—18 inches—22 inches.

A.—You're sure that's glass in

H. H. Fawcett (left) demonstrates the strength of goggle lenses. Safety glasses break at 24 inch drop of 20-ounce ball. Ordinary lenses break at 3-inch drop.

there, Mr. Fawcett?

F.—Positive. It is glass. I'll break it—eventually—24 inches.

A.—That's got it.

F.—But you see, even when broken, the glass held together reasonably well, whereas in the other lens the glass is just completely ready to fall to pieces.

A.—Yes, indeed. There is a very marked pattern I notice in the way the glass broke in this particular pair, this safety lens here. Does it always break?

F.—The granulation seems to be characteristic of this type of glass. Due to the hardening effect, the glass largely retains itself.

A.—Well, Mr. Fawcett, is this glass laminated the way it is in automobile windshields? That's safety glass, too, I guess.

F.—No, this is not laminated. This is one piece glass put through a special hardening process so it is possible to increase the strength tremendously.

A.—Well, that certainly is an interesting and a very convincing demonstration. They certainly are very strong lenses they put in

those safety glasses. Turning from our eyes for the moment, what about the atmosphere? I should think that in a research laboratory you would be continually worrying about poisonous gases and that kind of thing getting around and doing damage to people. Is that right?

F.—As a matter of fact, the atmosphere is probably the one

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Explaining oxygen deficiency and its effect on combustion and life. Tests are made with the oxygen deficiency indicator on the table.



A lesson for housewives. In this miniature explosion gallery, Mr. Fawcett shows ordinary white flour will explode.



METALIZING

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1. Metalizing is the process of building up the surface of an object by blowing small particles of molten metals against it in a blast of oxygen or air. It is most commonly applied to metallic surfaces.

2. The metal is usually melted by an oxyacetylene torch equipped with a device for feeding a wire of the metal into the flame at a constant rate. The blast from the torch then blows the molten material into a fine mist and carries the mist to the object to be coated.

3. Other types of equipment feed the metal into the flame as a fine powder or as a pre-melted liquid. Other fuel gases may be used, particularly for metals of fairly low melting points.

Uses

4. The metal will adhere to a properly prepared surface, even though the surface is not brought to the welding temperature, and organic materials can be coated without damage if they are moderately resistant to heat. Any metal which can be melted in the torch flame can be sprayed for metalizing.

5. The process is used, both for maintenance and for production, as a method of tinning, galvanizing, copper or cadmium plating, or hard surfacing. It is probably most commonly used as a maintenance process in building up worn shafts, rolls, wheels, or other parts with non-corrosive or hard metals such as the stainless steels, monel, and hard surfacing alloys.

Preparation of Surface

6. For the metal to adhere properly, the surface must be free of scale and grease and must be

This Data Sheet is one of a series published by National Safety Council. It is a compilation of experience from many sources. It should not be assumed that it includes every acceptable procedure in its field. It must not be confused with American Standard Safety codes; federal laws; insurance requirements; state laws, rules and regulations; and municipal ordinances. Reprints of all Data Sheets are obtainable from National Safety Council.

roughened so that the sprayed metal can key into it. If the work is light and is not to be subjected to severe mechanical strain, the surface may be cleaned by pickling with acids which will not damage the base metal, or surface corrosion may be removed and the surface lightly roughened by sandblasting. Organic surfaces, and some metals, may be prepared simply by removing grease with solvents.

7. If a heavy coat is to be applied and the best adherence is required to permit severe mechanical treatment, the surface is usually prepared by taking a cut from it with a lathe to true up the base metal and then using a threading tool to run a groove along the part to be metalized.

8. The surface may also be roughened by a form of arc welding done with special equipment which places several welding rods in contact with the surface and keeps them in contact just long enough to form little craters. The process is repeated at close intervals until the whole surface is roughened.

Hazards

9. The chief hazard of metalizing is that of pollution of the surrounding atmosphere with particles of the sprayed molten metal, and its seriousness will depend in large measure on the toxicity of the metal being sprayed. On any metalizing operation, information on permissible limits of the material being handled should be obtained, and precautions should be taken to keep the air contamination safely within those limits.

10. The process presents fire and explosion hazards common to the handling of any fuel gas system and some probability of contaminating the surrounding atmosphere with carbon monoxide, since metalizing is normally done with a reducing flame.

11. A further explosion hazard is present when light metals are used for spraying. The fine metal dust is collected in the ventilation system and may be explosive.

12. There is the same hazard from visible glare as in any other gas welding operation and also a hazard of burns either from the flame or from the hot metal, particularly on a large job which requires pre-heating for a good result.

13. In the preparation of the surface to be metalized there are hazards of chemical burns from pickling solutions or of the inhalation of silica in sandblasting. On maintenance jobs, which often are done with improvised or makeshift apparatus, special precautions should be taken against chemical splashes and inhalation of the vapor from pickling baths. Use of makeshift or improvised

apparatus is likely to require more dependence on personal protective equipment than is customary and consequently to require closer supervision to see that the equipment is properly used.

Protection against Acids

14. If material is to be pickled in acid, the minimum protective equipment for men doing the job should be rubber gloves with long gauntlets, rubber aprons, splash-proof cup goggles, and hats.

15. If the pickling bath contains nitric acid and cannot be used in an exhausted tank, the men should wear either supplied air respirators or canister gas masks with acid gas canisters. These types of respiratory protection should also be used when pickling is done with other acids if the mist thrown off causes irritation of the nose and throat.

Protection against Solvent Vapors

16. If solvent degreasing cannot be done in a properly constructed degreasing tank, either a high flash point petroleum solvent of low toxicity or a mixture of a fairly high flash point petroleum solvent with a chlorinated solvent of fairly low toxicity, such as trichloroethylene or methylene chloride, should be used.

17. Both of these substances should be used either out-of-doors or in a well ventilated place with fans set up to exhaust the vapor away from the workmen and out of the room. These mixtures have the advantage of offering both minimum fire hazards and minimum health hazards.

18. If mixtures of petroleum solvents and chlorinated hydrocarbons with greatly different evaporation rates are made up, it is possible to have a toxic concentration of chlorinated hydrocarbon vapor in the atmosphere, or enough of the petroleum solvent to produce a severe explosion hazard, after the mixture has been in use for some time.

19. One large organization has prepared a motor cleaning mixture containing 25 per cent methylene chloride, 5 per cent perchloroethylene, and 70 per cent Stoddard solvent which appears to be fairly satisfactory.

Health Protection

20. The precautions necessary for protecting the health of metalizers vary according to the type of work being done and the type of metal being used. In addition to respiratory protection, extreme care to keep floors, work benches, and booths free from dusty residues is essential for health protection; unless the housekeeping is excellent, no other measures will be effective.

21. Lead, cadmium, and their alloys are particularly hazardous because of their high toxicity. When they are used for metalizing, great care must be taken to prevent inhalation of the fume or dust.

22. Zinc and other light metals may cause considerable trouble by producing "metal fume fever." This distressing occupational disease is characterized by a high fever with chills and headache, followed by extreme weariness and weakness. The condition usually clears up of itself in 24 to 48 hours and is generally considered to be not at all dangerous to life.

23. Carbon monoxide may be produced in any metalizing operation, regardless of the type of metal being sprayed, and precautions must be taken to prevent inhalation of an excessive amount of it.

24. Laboratory studies show that, no matter how careful or skilled the operator, some of the sprayed metal is certain to miss the work and contaminate the surrounding atmosphere. Consequently, metalizing operations must usually be performed under a hood or in a specially designed isolated room, and the operator must be equipped with an appropriate respirator.

25. Air supplied respirators are generally the most desirable. For occasional small-scale metalizing jobs, a respirator approved by the Bureau of Mines for metal fumes may be used.

26. The following personal protective equipment and special precautions are recommended for the types of metalizing operations listed:

a. *Light production under a hood:* lined leather gloves, spectacle safety glasses with shade 4 or 5 lenses, and a respirator approved by the Bureau of Mines for metal fumes.

b. *Heavy production under a hood:* flame-resistant clothing, lined leather gloves, spectacle safety glasses with shade 4 or 5 lenses, air line respirator. (A metal fume filter respirator will be sufficient for protection against iron and other materials of very low toxicity.)

c. *Lathe work:* leather apron, lined leather or asbestos gloves, sleeves of leather or flame-proof duck, cup safety goggles with shade 4 or 5 lenses, and a Bureau of Mines approved metal fume respirator.

d. *Work in open air:* flame-resistant clothing, lined leather or asbestos gloves, cup safety goggles with shade 4 or 5 lenses, air line or Bureau of Mines approved metal fume respirator.

e. *Work in a tank:* flame-resistant clothing, lined leather or asbestos gloves, clothing strapped tightly around wrists and ankles, life line and safety belt, a hose mask or other supplied atmosphere respiratory protection. An attendant should be stationed outside the tank to observe the operation at all times, and life line, safety belt, and respirator should be available for his use at any time.

Physical Examinations

27. Metalizers should have placement and periodical medical examinations. If they work regularly or frequently with lead, cadmium, selenium, or other highly toxic metals, the examinations should be given at frequent intervals, at the discretion of the medical officer, and should include laboratory procedures which show absorption of the metal involved.

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I GET HURT

By BILL ANDREWS

(Fiction)

April 3, 1950.

IT was a perfectly good ladder. That much I insist on, despite the cynical wisecracks of my safety department staff.

Also I was sober. Also I was not skylarking. Also, I was not, as far as I know, in a bad frame of mind. All these points I make to dispose of the ribald comments made as I walk the production floor and the tentative probings of our psychiatrically-minded personnel counselors.

Nonetheless, this has been a very bad Monday morning for me. Me, the safety director. Me, the guy who always proves that accidents don't happen, but are caused, who always tries to prove that the victim is wrong.

Me in my fine, white, shining, plaster cast!

It happened, appropriately enough, on April Fools' Day. Lured on by balmy breezes from the South, I tackled the storm windows on Saturday morning. I did, I repeat, thoroughly check the ladder. It was sound and solid. I experienced no difficulty with it as I took down the first half a dozen windows.

But when I moved around to the front of the house, I made an assumption based on last fall's

experience. I put the ladder close to the house, one pair of legs on a concrete walk, the other pair straddling some small evergreens we put out last summer.

Last fall that worked fine. But last fall, I remember now, I put the windows up on a frosty day following a long dry spell. The ground was iron hard.

Saturday I must have set one leg of the ladder on a stone or small piece of wood, because it seemed steady as I went up. But just as I heaved the window loose with an extra hard tug, one leg of the ladder started down into the mud.

I remember deciding that I and the storm window had better separate. I heaved it away from me and promptly fell myself in the opposite direction. Sue came out of the house at the sound of the crash, obviously unhappy that I had clumsily broken the window. I sat up in the mud and started cussing with enough fervor to rouse her professional interest as an ex-nurse.

The doc at the hospital diagnosed it as a broken arm. The physical anguish is nothing to the embarrassment. I have received so far today three inter-office memos with smart comments on the need

for filing a complete accident report promptly. I have been interviewed by two alleged reporters for our plant magazine. Pranksters have put up on the wall of my office two posters dealing with the safe use of ladders. I expect to receive several marked copies of our safety rule book before the day is over.

I had lunch today with Doc Moller, head of our research department. He was the only man I met who didn't make any wisecracks. But he talked with more than his usual twinkle in his eye about some problems of laboratory safety, and he finally got around to the story which had doubtless prompted him to ask me to lunch in the first place.

"I vas young, serving my fellowship in Vienna. I had a professor. His name vas, vait, I remember, Blorenstein. He vas a good man in hydrocarbons—and there vere few good vuns then.

"He vas, like you, a security—I mean safety-minded man. Ve called him *Schielbrille* — 'Goggles' you vould say. Ve vere young, as I say, und ve liked our schnapps and beer and made him very unhappy because ve vould not be careful in the laboratory. I haf run explosions so they vould scare you—no, they vould even scare me.

"Vun day in a beer garden, he vas listening to the band and sipping a drink. There vas a fight at another table, and glasses vere thrown. Herr Professor vent to the hospital vif an eyelid cut

vide open and a little damage to the cornea.

"He vas very unhappy about that eye, und ve made him more unhappy vif our questions. Ve vere young, as I say, and very bright boys, and very stupid and a little cruel. Ve vent to lunch the first day after his return at the restaurant vhere he ate, and ve all vore goggles at the table. It made him very unhappy.

"But that afternoon, he had had time to think, and he vas not at all a stupid man. He called a staff meeting. 'Gentlemen,' he said, 'I am delighted to see that you haf learned from my accident. I think maybe ve should make it a rule that all staff members wear goggles ven eating in public.'

"He vaited a minute, looking in our faces, smiling sweetly. 'There should be no objection to this, since four of you haf already begun the practice voluntarily. Maybe your young ladies will think you are prettier, hah?'

"Eventually, ve apologized. He accepted the apologies, but vent on, 'Now, ve haf had our fun. But I haf a sore eye, a very sore eye. I can afford to have a bad eye—because I vork vif my head. But I need your eyes, since you don't yet know how to think. Vun rule I make, right now, here. I vill throw out of my laboratory, now, from now on, any assistant who does not wear goggles ven running explosions or handling acids. Ve vill get some good, then, out of my torn cornea and out of your sophomoric humor. So!'"

I took up the Doc's idea. Instead of waiting for the ribbers to come to me, I formally filed an accident report in detail, posted copies on the bulletin boards. I've cooked up a feature spread for the plant paper.

I'm like the Doc's old prof—I'm going to exploit my discomfort (both physical and mental). On ladders, anyway, I'll bet the plant shows some improvement in the next six months.

(To be continued)

NSC PROFILES

JAMES TANHAM



JAMES TANHAM, chairman of the Board of Directors of the National Safety Council, is vice president of The Texas Company.

Mr. Tanham was born in Brooklyn, N. Y., August 10, 1895, and was educated in the Brooklyn Public Schools. He studied professional accountancy, building construction, law and Spanish at various universities.

He was married November 10, 1921 to May Cover of Farmington, Mo.

After early jobs as office boy, clerk and secretary, he enlisted in the Navy May 1, 1917. He was released from service March 25, 1919, and two months later got a job as stenographer with The Texas Company.

Mr. Tanham served the Texas Company successively as clerk, executive assistant, assistant to vice president and assistant to the president before he was elected vice president of the company in 1941.

Despite the responsibilities of a successful business career, Mr. Tanham has found time for a number of outside activities in civic and business affairs. He is chairman of the executive committee and member of the board of directors of the Greater New York Safety Council. In the

United States Chamber of Commerce, he serves as a member of the Committee on International Political and Social Problems and as a member of the Natural Resources Department Committee.

He served as alternate, then regular industry member, then chairman of industry members of the National War Labor Board. He was alternate delegate to the President's Labor-Management Conference in November, 1945; adviser to the American industry delegate to the International Labor Organization Conference in Montreal in September, 1946; delegate of the petroleum industry to the Petroleum Committee of the I.L.O. in Los Angeles in February, 1947. He was representative of the International Organization of Industrial Employers at the United Nations Conference on Trade and Employment at Havana, Cuba, in November, 1947, and March, 1948.

Mr. Tanham is a member of the executive committee of the New Jersey State Chamber of Commerce; member of the executive committee and board of directors of Junior Achievement, Inc.; member of the executive committee and board of directors of American Management Association; member of the Public Relations Advisory Committee of the Automotive Safety Foundation; member of the New York State Chamber of Commerce, and a member of the National Industrial Committee of the National Council of YMCAs of the USA. He also is a trustee of the Citizens Budget Commission of New York.

Club affiliations include membership in the Cloud Club and the Union League Club in New York City and the Echo Lake Country Club at Westfield, N. J.

Mr. Tanham's home is at 290 Park Avenue, New York, 17.

Safety's Best Aid—The Nurse

By LILLIAN STEMPE

First aid for ailing safety programs is often provided by the industrial nurse with her understanding and humanity

HAVE you ever known of a nurse who enrolled in her profession because she wanted to become an industrial nurse? The answer, no doubt, is "no." Yet industry has attracted and kept some of the finest registered nurses in the field, resulting in increased emphasis on the importance of their role in industry.

The nurse who has been trained under the skillful guidance of the medical profession knows that she can adhere to the same ethical code of conduct which governed her in private or hospital practice. Moreover, she finds she does not lose her skill in the handling of sick patients, for many of the first aid calls are from employees who have become ill on the job and need her initial care. And even more important is the fact that her primary motive for entering her chosen field—sympathy for mankind and the desire to alleviate human suffering—has an excellent chance for expression in industry. The medium is the nurse's participation in accident prevention work.

The extent of this participation depends on a number of factors; the size of the plant and the number of first aid calls handled, the nurse's enthusiasm and interest in accident prevention; the amount of encouragement she receives from safety and other management representatives with whom she works; and the recognition she receives for this additional interest which sometimes has been termed

"above and beyond the call of duty."

Actually the nurse and her medical department form a separate and distinct unit in an industrial organization. For no matter where she appears on the organizational chart, certain basic functions are relegated to her department which must remain unaltered. These are:

1. She works under the standing instructions of the company physician.
2. Because of her recognized medical training, only she is qualified to indicate the extent of medical treatment to be authorized for a patient.
3. Accepted minimum standard requirements include assistance in pre-employment physicals, with re-examinations or special tests when indicated; the provision of adequate care for the injured or ill on the job; the dispensing of certain medical aids approved by the company physician; assistance in carrying out group health programs; and the maintenance of good medical records for purposes of proper job placement, workmen's compensation insurance, and accident analyses.

In addition to these basic functions, the nurse aids in accident prevention work. As mentioned before, the factors determining the extent of this participation are the size of the plant and number of first aid calls, her enthusiasm, the encouragement she receives, as well as the recognition.

Not so long ago Ethel Lamb of the Continental Can Company stated that "the appearance of the nurse in industry has provided the human touch that was disappearing when plants began to grow big . . . she is an ambulating safety valve." That human touch is

recognized by employees and many of them come to the plant nurse for all types of help and counseling.

The nurse is the best judge of how much time she can devote to accident-prevention work and if she is encouraged, that makes progress in accident reduction speedier.

Many persons in safety work have found that when they want first aid for their safety programs, the person to see is the nurse. You will find just as much satisfaction as the patient who is seeking relief from a headache. You will find just as sympathetic a listener as does the worker who goes in to unload his troubles on her shoulder. You will find just as much skill at your disposal as does the employee who comes in with a serious injury.

Your nurse can give first aid not only to your people but to your program as well, for she is the first point of contact in the over-all accident prevention program. When the wire to that contact is kept open, those interested in preventing accidents literally inherit an extra pair of hands, a willing and generous heart, and an unending source of enthusiasm.

Here are some examples of the many ways the industrial nurse can help you. The nurse can provide daily information about minor injuries or accidents which have potential seriousness. Corrective action can thus follow immediately rather than await the compilation of a monthly report.

One of our nurses recently reported that a girl was pinned against a load of books by one of

MISS LILLIAN STEMPE is Safety Director, Rand McNally & Co., Chicago, Illinois, and Hammond, Indiana.

our electric trucks. There was no injury, but there could have been. An investigation showed that the horns on the electric trucks were either missing or inoperative part of the time, thus insufficient warnings were given to workers in the areas used by the trucks. Horns were provided or repaired, speed limited, and truckers cautioned to drive safely. And all this came about because the nurse was not only interested in first aid for the patient, but for the problem as well.

The nurse is your best safety salesperson. She can cite numerous convincing examples in her sales talk as to why a patient should become accident-prevention minded, and she can do it while she is administering first aid. "You know," she'll point out to a worker who has come in with a bruised toe, "you were lucky your injury was not greater. Would you be interested in avoiding a similar injury?" She shows him illustrations of safety shoes, or a display of mashed safety shoes which saved toes for their wearers. That kind of sales talk is hard to resist. The nurse is in an ideal position to use it to reduce accidents.

Plant inspections and an interest in seeing how the people perform on their jobs frequently bring the nurse into work areas and her appearance has a beneficial effect. Her crisp white uniform reminds workers of cleanliness, and carefulness.

When she is encouraged to take an active part in the safety program, you will find an improvement in working conditions. For example, a worker comes in complaining of a stomach ache or nausea. Offhand he cannot account for his condition, but by skillful inquiry, she can. In one instance, the nurse found that a welder was working near the patient and a checkup revealed the need for additional ventilation. A change of schedule was made to have the welding done while the other workers were not around

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The SAFETY VALVE



Happy Memories

The \$1000 (or less) car has joined the buggy whip and the nickel cup of coffee among our memories. At today's costs, any car made to sell for one grand would collapse under the tax load on the way home.

Moreover, the motor manufacturers say people want their cars big and luxurious. Columnist Frederick Othman challenges that notion. He has fond memories of a Model A Ford he bought back in 1930.

One of its great virtues, he says, was all the modern features it lacked—things that go haywire and inflate the repair bills. And he could keep on eating while keeping up the monthly payments.

Othman wooed his bride in a Model A, which probably accounts for some of his sentimentalizing about it. But he gave some sound, practical reasons, too.

I know how he feels. Our first car was the same make, vintage of 1931. It had a lot of good points. You could park it in cramped space. In the garage it didn't crowd out the lawn mower and wheelbarrow.

Repair bills were easy, even on a depression income. A set of new piston rings was just a petty cash transaction.

We saw a lot of the U.S.A. and Canada in Susie. It really gave us quite a pang when we turned over the keys to the dealer and drove away in something fancier. Susie was sold down the river to some farmer near Des Plaines, and we hope he gave her a good home.

Of course, the pre-streamlined models had some drawbacks. One of them was having to tie luggage on the running board where it was exposed to dust and weather. It

also had to be unpacked and repacked at tourist homes and for customs inspection at the border. And I never was good at tying knots.

The first time we loaded Susie's successor for a trip I was convinced that the trunk was the greatest improvement in automobile design since they added the windshield. And it wasn't hard to get used to the radio and heater. Without them, a car now seems like a house without modern plumbing.

I haven't asked my wife but I don't think she would be satisfied with 1931 transportation. And I'd bet Othman's missus wouldn't be keen about it either.

The trouble is that most of us want eight-cylinder power, speed and luxury with four-cylinder economy.

Meow!

"Help Save America's Cats—Adopt a Cat" is the slogan of the American Feline Society which sponsors a National Cat Week each year.

Friends of our feathered friends have been giving that slogan the bird, and I must admit I can't work up any enthusiasm for saving America's cats, including a certain smoky Persian who has been a member of our household for thirteen years. During that time I've picked bushels of gray hair from rugs and upholstery and carted thirteen cubic yards of sand into the basement and out again.

Oh, well, the enriched sand helps to build up a good compost heap.

Carman Fish

the industrial safety panel



Discusses

A Safety Man's Philosophy

THE PARTICIPANTS:

W. M. ALLISON, Safety Director, British Columbia Lumber Manufacturers Association, Vancouver, B. C.

R. L. ANDERSON, Sales Manager, Kindy Optical Company, St. Paul, Minn.

H. K. BENNETT, Manager, Safety Council Division, Automobile Club of Rhode Island, Providence, R. I.

R. W. LAUGHLIN, Supervisor Loss Prevention, Liberty Mutual Insurance Company, Portland, Me.

CLARENCE L. MOORE, Safety and Fire Protection Engineer, Veterans' Administration, Bath, N. Y.

C. E. RICKETTS, Plant Supervisor, The Bell Telephone Company of Canada, Montreal, P. Q.

FROM the beginning of organized safety work there have been frequent discussions of motivations behind accident prevention effort. Is the financial saving more appealing to management than the humanitarian angle?

Why do safety men choose this field as their vocation? What satisfactions do they find in the work?

In an editorial in the February NATIONAL SAFETY NEWS, Ned H. Dearborn discussed the philosophies of two safety men. To one of them, safety was primarily good business; it saved money for the company through reduction of accident losses and improvement of over-all efficiency.

To the other, safety work was an opportunity for the application of Christian principles of living in a cooperative effort to help each other.

Actually, there is no real conflict in these two points of view. Every safety man combines them in varying degrees.

These personal interpretations of the philosophy behind safety work were inspired by Mr. Dearborn's editorial.

The End Justifies The Means

MR. ALLISON:

I have earnestly endeavored to determine which of the two reasons mentioned in your editorial directed me into the accident prevention field. After two or three weeks of thought, I am not sure that I am any closer to the solution than when I started.

My introduction into the lumber industry was as a first aid attendant in a sawmill employing 400 men. In this position, I saw at first hand the suffering caused by accidents. I sincerely wished to do something about it, but several years ago, especially here in British Columbia, the belief was prevalent that accidents were bound to happen and nothing could be done about them. The firm I was employed with at that time was high-principled and humane, but to suggest safety precautions was almost in the realm of fantasy.

At that time North America was just recovering from the depression, and I felt that the dollar and cents angle might be effective. I proceeded to point out to the powers-that-were how much every accident cost them and how little prevention would have cost.

So, to better myself, my fellow workmen and the industry, I swung over to this approach. On my return from service in the E. T. O. I accepted my present position. I find that I am now using both approaches, but more often the financial approach. Having been associated for many years with Will D. Jenkins, who is well known in the industry, I can never forget the humanitarian angle of our work.

It was very gratifying to me when, in 1948, the firm with which I started several years ago won the

Distinguished Service to Safety Award from the National Safety Council.

Summing up my philosophies, I might say that the end justifies the means.

A Salesman's Credo

MR. ANDERSON:

Your editorial, "Two Points of View," is certainly a challenge to any man in safety work to attempt to put his thinking down on paper.

My place in the safety movement is the selling of eye protection and improved vision. In selling safety equipment, however, I find that in many cases I must first sell the ABC's of safety especially in the small plant. Necessity has dictated that I become a general safety missionary first; salesmanship is secondary.

Analyzing my motives. I sell safety to earn a living—to earn a profit for my company and for the companies to which I sell. I sell safety to save the eyes and lives and limbs of men who work, and for the security of their families.

It makes me feel good.

I felt good when I read a story in the newspaper that one of our client plants saved six eyes in one day; that another saved nine eyes in a couple of years; that one man had the same eye saved twice in less than six months.

I feel good when a safety man tells me about a worker who has been doing a better and safer job since he was fitted with prescription goggles.

Yes, I feel good, and I like to think that I'm doing good for others. I'm no Pollyanna, but there's a dog-eared clipping that I carry around in my billfold. It sums up pretty well a philosophy of life for men engaged in safety:

"I shall pass through this world but once. Any good, therefore, that I can do, or any kindness that I can show to any human being, let me do it now. Let me not defer it or neglect it, for I shall not pass this way again."

I feel good that I have an occupation that allows me to live that philosophy in my daily life.

Making Life Worth Living

MR. BENNETT:

Why am I pursuing the vocation of accident prevention?

For more than twenty years I bought human life and broken bones with money, making the best compromise that I could between my conscience and the welfare of my company. I went into homes bereaved of the breadwinner; where the only child was waiting to be taken to its last resting place, and where human suffering was being borne with what fortitude could be brought to bear.

When the opportunity came to get into the game of helping to save life, limb and suffering, I welcomed it, and for 27 years I have done my best, but sometimes failed in the endeavor to inculcate

THE INDUSTRIAL SAFETY PANEL is an informal group representing various branches of industry. Each month part of its membership discusses some question relating to accident prevention principles and methods. The Panel is conducted by mail and participants have no opportunity to compare notes.

Personal views of members are invited. Statements presented here may or may not be expressions of company policy.

The limited sample of opinion presented in the Panel inevitably leaves some angles of the subject uncovered. Comments of readers will be welcomed for publication, also topics you would like to have discussed by the Panel.

into the minds of men, women and children that life was precious. Whatever they might be doing—at work, at play and while busy in their home—they should have constantly before them the five wonderful words "I will always be careful." This was my theme on the radio for 21 years, and the reward is in the thought that I have tried to make life more worth living.

My advice to all safety men is to get the "human touch," for that, I firmly believe, is the keystone of safety work.

I am retiring April 1, and I hope and pray that the work will go on and on with increased results.

Inner Conviction

MR. LAUGHLIN:

I cannot see any real conflict in the two points of view presented in Mr. Dearborn's editorial.

Too little is said of Christ's driving the money changers out of the temple. Too few people have read Bruce Barton's "The Man Nobody Knows." Too many people are satisfied to take a superficial view of religion. And too few are guided by the sign once seen outside a church, "Religion isn't something you learn; it's something you live."

True religion is ultimate safety because it is inner conviction. The religious man does right because he knows it's right. The careless man does wrong because he thinks he can get away with it, has been misled by the acts of others, or follows the dollar sign instead of the cross.

Christ spoke in parables.

In an industrial plant there were two foremen. One appeared to be hard, practical and energetic; the other was indecisive and soft mannered. Both noted men doing extremely unsafe acts. The first called the man over, pointed out the possible con-

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Discontent Spurs Action

By H. T. McDERMOTT

Refrigeration engineers push aggressive safety campaign to better the industry's accident frequency rate.

WE'RE not satisfied with our record — and we're doing something about it.

That's the attitude the Refrigeration Service Engineers Society adopted after looking at the accident frequency rate for the refrigeration industry. This international educational association embarked upon an aggressive safety campaign more than two years ago. The society, numbering nearly 10,000 members in the United States and Canada, is composed primarily of individuals engaged in the installation and servicing of domestic and commercial air conditioning and refrigeration equipment.

The association is unique in that it has no paid officers. Membership dues maintain an educational department. This activity is carried on through educational bulletins to members and frequent meetings of its 185 local chapters. It is at the local chapter level that the association expects to do its most effective safety work.

The Refrigeration Service Engineers Society is but one segment of the refrigeration industry. The others include equipment manufacturing plants, ice manufacturing plants, refrigerated warehouses, and other major users of refrigeration. Accidents occurring in these various classifications are therefore charged to the refrigeration industry.

The safety committee of the society is headed by George Schuld, Sr., a veteran refrigeration

operator who knows from experience the price of carelessness. Although Mr. Schuld is busily engaged operating his own busi-

ness, Schuld Refrigeration, of Cleveland, he finds time not only to guide the expanding work of the association's safety committee, but also to make frequent personal appearances at meetings of the association chapters and other organizations such as fire departments and civic organizations.



H. T. McDERMOTT is International Secretary, Refrigeration Service Engineers Society, Chicago.

One of a series of "Detect and Correct" posters issued by the Refrigeration Service Engineers Society. These are used in safety quiz programs by local chapters. There were 18 unsafe items in this sketch.

Safety posters covering various refrigerants have been prepared for posting in machine rooms. Other posters deal with sulphuric dioxide, Freon-12, and methyl chloride.

THIS REFRIGERATING SYSTEM
CONTAINS _____ POUNDS OF

AMMONIA

IT HAS A STRONG ODOR AND IS UNSAFE TO BREATHE
IN CERTAIN MIXTURES WITH AIR, AMMONIA IS
INFLAMMABLE AND EXPLOSIVE.

WARNING—IN CASE OF KNOWN OR SUSPECTED LEAKAGE,
OPEN WINDOWS AND VENTILATE THOROUGHLY
AVOID FLAME OR ELECTRIC SPARK

PRESSURES — POUNDS PER SQUARE INCH GAGE
NORMAL OPERATING EQUIPMENT TESTED

WARNING
WHEN OILING OR CLEANING MACHINE
TURN THE SWITCH OFF
WHETHER THE MACHINE IS RUNNING OR NOT

SAFETY PAYS — ALL WAYS

FOR SERVICE, CALL _____

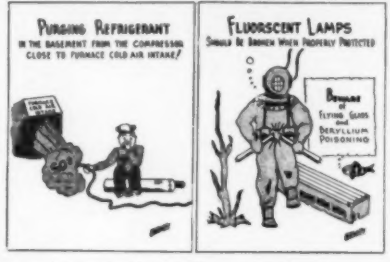
Telephone: DAY _____ NIGHT _____

SAFETY HAS NO SUBSTITUTE

Accidents described in this department are taken from authenticated reports from all parts of the country. They are briefs of actual accidents in the refrigeration and allied fields.

COMPILED BY GEORGE SCHULZ

- A workman was flattening some copper tubing with a hammer. A piece of metal, probably from the hammer head, flew up and struck him in the eye, the sight of which is endangered. Had he been using goggles, as he should have been, the injury would not have happened.
- A man drilled a hole in some cement and there was dampness in the hole. Then he poured hot lead in the hole to hold bolts solid. The resultant splattering of the lead caused bad burns.
- Keep torches off concrete. The cracking of the cement from the heat can be bad on the eyes.
- A man who was putting a garage door on its hinges with an electric drill was electrocuted. With the electric drill in his hand, he stepped off onto the wet grass and was killed instantly.
- Don't forget about the high pressure in oxygen cylinders. Think about this for a few minutes and you will realize that the cylinder contents must be released smoothly and under complete control through an oxygen pressure-reducing regulator. Keep cylinders away from open flames and electrical wiring. Look where you hold the blow-pipe when it is lighted—and shut it off when you lay it down. Shut it off, too, when you turn around to talk to your helper. Keep your work table far enough away from the cylinders so that sparks, hot slag, or flames will not reach them.
- A repairman was detailed to a job where he was required to use a portable electric drill. Soon after the drilling commenced, fellow workmen found the operator slumped over the drill. A short circuit in the ungrounded drill had caused immediate death. Almost every day electric tools are being used without proper grounding.



Each issue of The Refrigeration Service Engineer has a page devoted to safety. Accidents reported from the field supply much of the material for discussion.

A well-defined program has been established for the association's safety campaign, which is considered an important part of its educational activities.

The work of the members may expose them to toxic gases used as refrigerants, mechanical devices used for repairing equipment, and sometimes unsafe locations where equipment is installed. Recognizing that it is necessary to secure the active interest of a large group of safety-minded members, the aid of the local chapter is enlisted.

At this level, a member is appointed as local safety chairman and is furnished a card by the international safety chairman. It is the responsibility of the local chairman to carry out in his community the program of the international safety committee. Among other activities, the local chairman secures reports of all accidents in the industry in his community and forwards them to the international chairman. Through this source, a large library of accident data is

being accumulated and publicized.

To assist the local chairman, the international safety committee provides packaged safety programs consisting of slides and talks. Four of these programs have been compiled and more are to follow. Each program contains about 25 slides. These are actual pictures of properly installed equipment, as well as installations which would not pass a safety inspection. Because the pictures and lectures relate specifically to the business of the individual, they convey the safety story with effective results. These lectures are also being made available, without cost, to vocational schools teaching refrigeration.

Feeling that many times the story of safety can be most effectively put over with a sugar-coated pill, the safety committee has arranged a series of contests known as the "Detect and Correct Contest." It comprises a series of cartoons showing unsafe practices of refrigeration service men. These contests are conducted in the chap-

ter and the winner detecting the greatest number of errors is awarded a prize, usually the official first aid kit, another safety product of the Society.

Realizing the necessity of first aid training, the safety committee spent many months devising what is now known as the "Refrigeration Service Engineers Society Official First Aid Safety Kit." It was recognized that certain supplies should be included in the kit, so accordingly the committee conferred with medical men and others experienced in first aid work in the industry, and as a result of these conferences, a special kit was prepared.

Continually, the committee stresses the importance of having a first aid kit convenient in the shop, as well as in each service truck. These kits are furnished at cost to the members of the society. In the interest of expanding its safety work to non-members, the kit is being offered to all engaged

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AUDITOR'S REPORT - 1949

To the Board of Directors, National Safety Council:

The Council has consistently followed a policy of charging to expense at the time of acquisition or production the costs of printed material, films, furniture and fixtures, and printing machinery and equipment. At De-

Deferred income at December 31, 1949, is understated by approximately \$147,000 as a result of the consistent practice of excluding therefrom that portion of the income from certain membership and service contracts which relates to future periods.

Except for the effect on the balance sheet of the matters referred to in the two preceding paragraphs, in our opinion, the accompanying financial statements present fairly the financial position of National Safety Council as of December 31, 1949, and the results of its operations for the year then ended.

ARTHUR ANDERSEN & Co.

Chicago, Illinois, March 10, 1950.

ASSETS

LIABILITIES

NOTES

- (1) The inventory amount represents the cost of paper and metal stock, printing supplies and postage. It does not include printed material and film, aggregating an estimated cost of \$305,000, which was on hand at December 31, 1949, and had been expensed in accordance with a consistently followed policy.
- (2) Furniture and fixtures and printing machinery and equipment are carried at the nominal value of \$1 each in accordance with a consistently followed policy of expensing additions to fixed assets at the time of acquisition. Such assets on hand at December 31, 1949, cost approximately \$150,000 and had an un depreciated cost of \$57,000 as of that date.
- (3) The anticipated expenditures of approximately \$350,000 will be incurred in 1950 in connection with moving the offices of the council and the improvement of the leasehold at the new location. Such amounts will be charged to expense when incurred.

STATEMENT OF INCOME AND EXPENSE FOR THE YEAR ENDED DECEMBER 31, 1949

INCOME:

Dues, publications and services.....	\$1,888,813.83
Contributions	524,143.86
Advertising, Annual Congress, etc.....	295,043.40
	<u>\$2,708,001.09</u>

EXPENSES:

Outside publication costs.....	\$ 780,852.03
Research and program activities.....	630,572.25
Membership promotion, sales and service.....	538,847.13
Local chapter and council development.....	116,393.95
Public information.....	111,030.99
Contribution solicitation.....	55,453.31
General and administrative.....	389,648.96
	<u>\$2,622,798.62</u>

EXCESS OF INCOME OVER EXPENSE.....\$ 85,202.47

(Continued at bottom of next page)

COUNCIL HEADQUARTERS WILL MOVE

NSC offices return to Michigan Boulevard with
larger quarters in Mandel-Lear Building

THE National Safety Council headquarters will move this month to new and larger offices on Chicago's famed Michigan Avenue. It is expected that the move will be completed before May 1.

The Council is taking over the entire fifth floor of the Mandel-Lear Building at 425 N. Michigan Avenue, overlooking the Chicago River. The space is being completely remodeled to adapt it to the Council's office, printing and stock handling operations.

The move from 20 N. Wacker Drive, where the Council headquarters have been located for 20 years, was made on the decision of a special New Offices Committee headed by Mr. O. Gressens, vice-president and comptroller, Commonwealth Edison Co., and the Council's vice-president for finance and treasurer. Other members of the Committee are James Tanham, vice-president, the Texas Co., and chairman of the board of directors of the Council; Dr. H. T. Heald, president, Illinois Institute of Technology; and Ned H. Dearborn, president of the Council.

The move gives the Council:

1. Better facilities for serving an expanding membership.
2. More space.

3. A more efficient, all-on-one-floor arrangement.

4. Better transportation and dock facilities.

5. A more flexible arrangement for future expansion.

The 60,000 square feet of space is an increase of 50 per cent over the present offices. The remodeling operation will give the offices complete fluorescent lighting, with at least 50 foot candles of light on each desk. A new ventilating system will supply the office with an adequate flow of cleaned air.

Three conference rooms will be available, so arranged that they can be opened together to form a single room with a capacity of 75 persons. This will provide three times the present space for meetings of committees, conferences, and other groups of members.

All ceilings in the office space will be acoustically treated, and the building is sprinkler-protected. Channels in the floor permit changes in the wiring system without the creation of tripping hazards. Rubber and asphalt tile will be used for all flooring.

Several Council facilities are being improved at the time of the move. All printing presses will be mounted on shock absorbing foundations. The staff health department rooms will be larger and

better equipped. Steel storage bins of standard design will permit efficient handling of stock. There will be a staff lounge, suitable for lunch periods, with a capacity of 100 at formica top tables. A photographic dark room is being equipped with new safety devices such as vacuum valves and safety lights. The mechanical tabulating equipment is being expanded.

The new offices have been taken on a 20 year lease at a substantial saving in rental.

One distinct advantage of the new location is the availability of rail and truck transportation below the Michigan Avenue street level. The Mandel-Lear building has a remarkably fine loading dock with very large capacity.

The building is next door to the Tribune Tower, across the street from the Wrigley Building, and across the river from the 333 Building. Service to the door is provided by bus.

Plans for the move have been made so as to minimize delays in serving the Council membership. There may be slight delays in handling correspondence during the actual moving days, but all regular Council publications should go out on schedule.

(Continued from page 38)

STATEMENT OF CHANGES IN NET ASSETS EMPLOYED FOR THE BENEFIT OF THE MEMBERS

	Appropriated for Future Activities	Unappropriated
Balances December 31, 1948.....	\$ —	\$156,515.58
Segregated by the board of directors.....	100,000.00	(100,000.00)
Excess of income over expense, as above.....	—	85,202.47
Balances December 31, 1949.....	<u>\$100,000.00</u>	<u>\$141,718.05</u>

CAUSE AND CURE



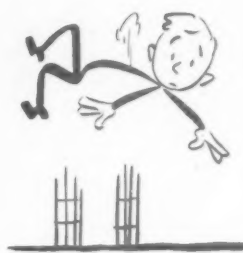
These examples are from reports of actual accidents. They list the causes and the steps taken to prevent recurrence



Trash Burner

Workman ordered to burn trash from plant operations found material slow burning and poured on gasoline which flared violently and burned him severely.

Correction: Use of gasoline for such purposes was positively prohibited. Experiment proved value of incinerator made from old oil drum which burned trash effectively.



Impaled

Maintenance worker fell from high motor platform and was impaled on steel reinforcing rods left protruding from newly-poured concrete foundation.

Correction: Permanent railing was installed on such platforms to protect workers. Contractor ordered guards on all reinforcing rods and dowels left in new foundations.

Ladder Mishap

When tacker in boat yard tried to climb ladder on underside, then tried to swing over on top, ladder slipped and he jumped, fracturing ankle in fall.



Correction: Group meetings were called and all hands were reinstructed in safe method of using ladders, which were relocated when little clearance made climbing difficult.

Toes Crushed

Worker helping to move heavy machine on rollers suffered two fractured toes when he stepped between supports and roller passed over his foot.



Correction: Millwright ordered use of rollers no longer than necessary for each job and campaign to encourage all workers in department to wear safety shoes was initiated.



No Lockout

Starter button on sand mixer was touched accidentally while worker was making adjustment inside, although red tag was on switch. Worker was killed.

Correction: Orders were issued that control switches of all machinery must be locked positively in off position during adjustment or repairs, lock to be removed only by worker on job.



Hook Slips

Hooker had attached hooks of chain slings to lift of steel plates at furnace slab and had hand on chain when hook slipped and chain fractured finger.

Correction: Hookers were instructed to attach hooks so they would not slip, and were ordered to keep hands off during lift, using hooks where necessary to guide lift.



The
NEW
Finnell
MOP TRUCK

It's Streamlined

FOR GREATER CLEARANCE... Conserves Storage Space

The new Finnell Mop Truck gives you all the fine features of the former Finnell truck plus several new ones. The new model has rounded corners and recessed wheels—especially desirable features when the truck has to be moved through narrow passages, and for conserving storage space.

A mop shield beneath the wringer of the truck prevents mop from dropping into the dirty water when being wrung. Wringer-rolls are of steel, and the truck has four double-disc pressed-steel wheels, two of which swivel... rubber or metal tires... and two 28-gallon tanks. Ruggedly constructed to withstand hard usage. Comes in stainless steel and in galvanized iron.

Finnell also makes a Mop Truck for smaller operations, with two 7½-gallon tanks. The com-

plete Finnell line includes Combination Scrubber-Vacuum Machines... Portable Machines for wet-scrubbing, dry-scrubbing, dry-cleaning, waxing, and polishing... Heavy Duty Vacuum Cleaners for wet and dry pickup... Steel-Wool Pads and other accessories... Cleansers, Sealers, and Waxes for every floor-maintenance need.

The nearby Finnell man is readily available to help train your maintenance operators in the proper use of Finnell Equipment and Supplies. For consultation or literature, phone or write nearest Finnell Branch or Finnell System, Inc., 2204 East St., Elkhart, Ind. Branch Offices in all principal cities of the United States and Canada.



FINNELL SYSTEM, INC.

Pioneers and Specialists in

FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES
IN ALL
PRINCIPAL
CITIES

Banash Awarded Morehead Medal

The 1949 James Turner Morehead Medal has been awarded to James I. Banash, Consulting Engineer, Chicago, and a past president of the National Safety Council. He received the medal for his



many years of inspiration, guidance, and encouragement of the acetylene industry in safety achievements. The presentation of the Medal was made at the opening luncheon of the Annual Convention of the International Acetylene Association at San Francisco, March 27.

The Morehead Medal is awarded annually by the International Acetylene Association to the person or persons who, in the judgment of its officers and board of directors, have done most to advance the industry or the art of producing or utilizing calcium carbide or its derivatives, the most important of which is acetylene gas.

The medal was established by John Motley Morehead in 1922 in honor of his father James Turner Morehead, who sponsored the experiments leading to the discovery in 1892 of the electric furnace method of producing calcium carbide. Since then the medal has been awarded annually to those who have made outstanding contributions to the acetylene industry.

Mr. Banash was graduated from Massachusetts Institute of Tech-

nology with a degree in electrochemistry. After graduation he continued at M.I.T. for a year as an instructor.

He was with the Underwriters' Laboratories in Chicago for twelve years and became head of the Casualty Department. He is an internationally known authority on compressed gases. For many years he has specialized in their safe application and in fire and accident prevention in their relation to the physical and chemical sciences. Mr. Banash is widely known as an author and lecturer, and has achieved special prominence for his work in connection with the mechanical aspects of controlled atmospheres of high oxygen content, especially as applied to oxygen therapy.

In 1932 he was elected president of the National Safety Council. He is consulting engineer for the International Acetylene Association, and an active member of many engineering and research societies.

Clune Appointed D & H Safety Chief

MICHAEL F. CLUNE has been appointed superintendent of safety for The Delaware & Hudson Railroad, succeeding the late John E.



Long. His headquarters are at the general offices of the railroad in Albany, N. Y.

Born March 23, 1889, at Miners Mills, Pennsylvania, Mr. Clune had spent most of his life with the

D & H. A graduate of the Miners Mills schools, Wilkes-Barre Business College, International Correspondence Schools, and the Army Engineering School, he entered the service of the railroad in 1904.

He has served as telegrapher, yard clerk, train dispatcher, inspector of personnel for the system, chief clerk to the general manager at Albany, special representative for the transportation department at Albany, assistant trainmaster on the Saratoga division, trainmaster of the Pennsylvania Division and assistant superintendent of the Pennsylvania division.

Mr. Clune is a veteran of both World Wars. In World War I he served as an enlisted man in the infantry and the Corps of Engineers. He operated light railways in France and after the Armistice was superintendent of terminals on the French-owned railways operated by the Army engineers. He received a commendation for this service.

He volunteered for duty in World War II and was commissioned a lieutenant colonel in the transportation corps. He was port transportation officer in Boston and was flown to Europe on a special mission.

Colonel Clune participated in the Normandy invasion and was placed in charge of several railways in Northern France. He next was appointed a member of the Supreme Headquarters Liberation Mission to Belgium as liaison officer between the American Army and the Belgian government.

He became disabled in Belgium and was returned to the Walter Reed Hospital in Washington, D. C. He was separated from the army July 27, 1945, and assumed duties as assistant superintendent of safety for the D & H.

Upon his discharge he was cited for meritorious service.

It adds truth and dignity to everything you say if you plead guilty now and then to a slight doubt.—James R. Adams.

Here's the Safety shoe men wear willingly

Men know the name Thom McAn . . . know and respect it. More millions of them wear Thom McAns than any other shoe. No wonder so many turn to the same brand for protection that they already depend on for good looks, long service, comfort, thrift. No wonder they wear *these* safety shoes willingly . . . and *keep* wearing them. No wonder Thom McAns help keep safety records *safe!*



S-4355 — Woven moccasin type in chestnut brown with leather sole and rubber heel. Three similar moccasin types also available.

SOLD 2 WAYS

1. Stocked for your men in Thom McAn stores.
2. Sold direct to plants.

Details of this service, plus information on the 4-way employee purchase plan, and the Thom McAn safety shoe features, should all be on your desk. Just write us and we'll see that they get there.

THOM MCAN SAFETY SHOE DIVISION
25 West 43rd Street, New York 18, N. Y.

More than ¼ million men will be in the stands at the opening of the 1950 baseball season. As in any crowd, more of these men will be wearing Thom McAns than any other shoes.

Thom McAn
SAFETY SHOES

A DIVISION OF MELVILLE SHOE CORPORATION



Your Ally ... the Suggestion System

By HARRY J. RICHEY

THERE is much in common between the National Association of Suggestion Systems and the National Safety Council. Although there is no comparison in size, there is a similarity in general programs, and companies usually place the safety director and the suggestions director under the same department head. The two activities are thus closely related. Each can and should assist the other.

Of approximately 500 suggestion systems with which I have a reading acquaintance, I do not know of one which does not promote interest in safety by one or more of the following methods:

1. Incorporate safety in employee's suggestion programs as a definite subject eligible for a cash award.
2. Include at intervals in the poster schedule, a suggestion poster which concentrates on safety.
3. Publicize awards for safety suggestions.
4. Emphasize safety among types of suggestions.
5. Work closely with the safety engineer.

An employees' suggestion booklet is the published agreement of a company to proceed along definite lines, if and when employees have participated in the system in accordance with the plan as outlined. Such books list, under a general category, various types of suggestions eligible for cash awards. Safety, under various terms, is conspicuous among them. Our own booklet reads, "Reduce Accident Hazards."

HARRY J. RICHEY is Director, Suggestion System, National Biscuit Company, New York, and immediate past president, National Association of Suggestion Systems. This article has been adapted from a paper presented at the Session on Maintaining Interest in Accident Prevention, 37th National Safety Congress.

We repeat on our suggestion form that safety suggestions are eligible, and feel that such repetition makes for emphasis.

We have two mascots for our suggestion system—"Reddy Doe" and "Brite I. Dear." As mouthpieces of the division they can convey messages which we could not—at least not in such a breezy manner.

The posting date is dovetailed into the safety engineer's schedule at a time when unusual care should be exercised, especially out of doors. In this series of posters we promote safety along with other types of suggestions. Many other companies follow a similar procedure. *

On payroll inserts and in letters mailed to the homes of employees, we outline types of suggestions wanted and safety is always included.

A suggestion system administrator should work very closely

with the safety engineer. We route safety suggestions to him for first consideration, just as we route advertising suggestions to the advertising department and production suggestions to the production department.

The promotion of safety depends upon its listing along with time-saving and materials-saving suggestions. Effective publicity is essential and proper consideration on the part of suggestion administrators and committees. These features can be accomplished through the use of an evaluation chart assembled by a group of administrators to be used in determining awards for approved safety suggestions. Application of this chart promotes uniformity in consideration and in awards.

In reality, awards are based on a point system and the points have value in the award range. For instance, the following scale was approved:

25-30 points	Minimum award
40-50 points	\$10
55-65 points	\$15
(Graduated upward in similar proportion)	

The chart includes five considerations in rating suggestions by points:

1. *Likelihood of accident*
Some 5-10
Appreciable 15-25
Considerable 30-50
(plus)
2. *Exposure Frequency*
Little 5-10
Appreciable 15-25
Considerable 30-50
(plus)
3. *Possible Extent of Loss Due to Accident, Personal Injury and/or Property*
Slight 5
Moderate 10-15
Appreciable 20-30
Considerable 35-50
(plus)
4. *Extent of Application*
Local (one or two places) 5-10
Several locations 15-25
General application — many locations throughout plant or company 30-50
(plus)
5. *Effectiveness of Suggestion*
Minimizes hazard 5-10
Limits hazard 15-25
Eliminates hazard 30-50
(plus)

MAKING SAFETY SUGGESTIONS



ANY suggestions you may wish to make for the safety of yourself or your fellow workers will be most welcome.

Make your suggestions practical. Think them through. Study them carefully yourself before you submit them. Imagine yourself in the position of your superior and ask yourself these questions: Are these ideas really practical—will they work? Can the company afford to spend the amount of money necessary to put them into effect immediately?

To suggest the first thing that comes to mind regardless of whether it is practical or not is a good way to take a chance of getting a discouraging response.

Always remember that a delay in putting a practical suggestion into effect is not always a sign that your efforts may not have been appreciated. There are sometimes very good reasons why the work cannot be undertaken immediately.



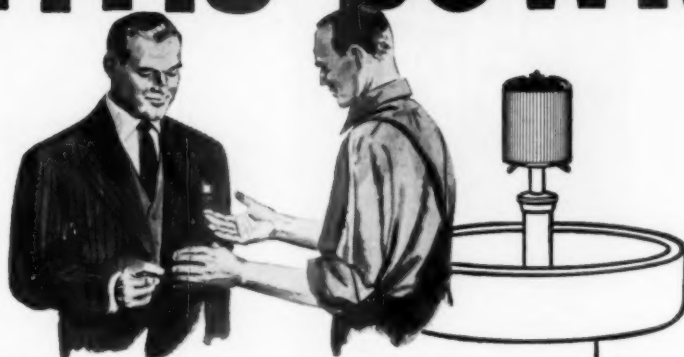
SAFETY INSTRUCTION CARD No. 109

DERMATITIS DOWN

...after using

WEST LAN-O-KLEEN HAND CLEANSER

...with *Lanolinized* Corn Meal



Figures don't lie—and cold figures from plant after plant of every size confirm this fact: That WEST LAN-O-KLEEN is *more* than just a fast-acting powdered hand cleanser that washes away stubborn grit, grease and grime with remarkable ease and thoroughness. It's a *safety* measure that actually helps reduce industrial skin infections — thus lowering absenteeism and production costs to a notable degree. Like all sanitary products formulated exclusively by West, LAN-O-KLEEN possesses that "little something extra" that makes it *extra-ordinary*. It contains no harsh abrasives — no excess alkali to harm the skin. What's more—its fine corn meal base is impregnated with an *extra-generous amount of lanolin* — thus helping to combat the loss of natural skin oils.

Let Us Prove It Can Happen in YOUR Plant

A trial test of WEST LAN-O-KLEEN will convince you that it should be standard equipment in your dermatitis prevention program. Write for a sample. With it you will also receive free a booklet telling how to use LAN-O-KLEEN — and how the LAN-O-KLEEN Dispenser can save you money.



SEND FOR FREE SAMPLE

WEST *Disinfecting Company*

42-16 West Street,
Long Island City 1, N. Y.

WEST DISINFECTING COMPANY
42-16 West Street, Long Island City 1, N. Y.

Gentlemen:

Please send me a free sample carton of LAN-O-KLEEN.

Name _____ Position _____

Company _____

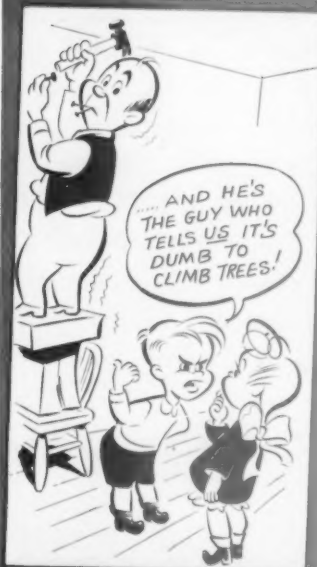
Address _____

City _____ State _____

12

the LIGHTER SIDE

NATIONAL SAFETY COUNCIL



Oratory is the art of making pleasant sounds which get applause from people who do not understand what the speaker means.

Personals

C. M. Bowling Retires

CHARLES M. BOWLING, formerly general chairman of the Railroad Section, National Safety Council, retired as superintendent of safety and fire prevention for the Louisville & Nashville Railroad on January 1. Mr. Bowling's railroad career extended over a period of more than 50 years, some 48 of which were in the service of the L & N.

A native of Longdale Furnace, Va., Mr. Bowling's first railroad experience was as a train crew caller with the Chesapeake & Ohio. Subsequently he served that road as a boilermaker's helper. He entered the service of the L & N as yard fireman at Covington, Ky., in 1901 and later served as road fireman on the Cincinnati Division. In 1905 he was promoted to locomotive engineer and in 1922 he became Assistant Trainmaster of the Cincinnati Division.

Following the re-organization of the safety department, Mr. Bowling was appointed inspector of safety in August, 1929. He served at Birmingham, Ala., Corbin, Ky., and Paris, Ky. He became superintendent of safety and fire prevention on March 1, 1942.

He took an active part in the work of the Safety Section of the Association of American Railroads and the Railroad Section of the National Safety Council. He served the latter organization as secretary and newsletter editor, 1945-46, and general chairman, 1946-47.

C. W. Bergquist Retires

C. W. BERGQUIST, president of the National Safety Council, 1930-32 retired on March 1 as counselor in public and industrial relations for Mars Incorporated, Chicago.

On September 1, 1943, Mr. Bergquist retired after 48 years' service with Western Electric Company, where he was manager of

public and industrial relations at Hawthorne Works. For many years he was a director of the National Safety Council and was active in many civic projects in the Chicago area.

Shortly after retiring from Western Electric, Mr. Bergquist became associated with Mars Incorporated. Now, he and Mrs. Bergquist are planning to enjoy more leisure.

T. G. SEAL, whose experience in the utility field has covered the full range from lineman to executive, has been elected a vice-president of Ebasco Services, Incorporated.

Mr. Seal is a director of the company and general consultant for Ebasco's Middle South Utilities Group of Client Companies, including Arkansas Power & Light Company, Louisiana Power & Light Company, Mississippi Power & Light Company and New Orleans Public Service, Inc. He will continue his activities for this group.

Mr. Seal joined Louisiana Power & Light Company in 1937 as director of rates and research. On November 1, 1940, he became associated with Ebasco Services, Inc., as an assistant operating sponsor, becoming successively operating consultant, operating sponsor and general consultant.

ROBERT CLAIR, Newton Center, Mass., has been named as assistant vice-president of Liberty Mutual Insurance Company.

A graduate of Holy Cross College, Mr. Clair attended Boston University College of Business Administration and Suffolk Law School. He joined Liberty Mutual in 1926 as supervisor of highway safety and held the position of chief loss prevention engineer in the company's New England division until his appointment as director of safety education.

Mr. Clair is a past chairman of the Boston Chapter, American

—To page 71

Keep floors safe!

safe!

stairs

Keep

Keep ramps safe!



Keep All Walkways Slip-Proof With

tread-sure

The Plastic Abrasive Brush-Coating

Horn Tread-Sure produces a heavy antiskid surface on wood—concrete—or steel deck flooring. It is an abrasive-filled plastic brush-coating—simple to apply. It is resistant to gasoline, alcohol, oil and grease and many types

of acids. Whether the surface is wet, dry or oily it provides a non-skid safety footing, preventing falls.

Designed for exterior as well as interior use, it may be brush applied over other paint or direct to unpainted surfaces. Used as it comes from the container. Available in three colors: Battleship Grey-Red-Green.

A. C. HORN COMPANY, INC.

Manufacturers of materials for building maintenance and construction—established in 1897
10th Street & 44th Avenue, Long Island City 1, N. Y.
Los Angeles • San Francisco • Houston • Chicago • Toronto
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GENTLEMEN:

Please send complete data on TREAD-SURE.

NAME _____ TITLE _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____

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BULLARD
IN SAFETY

Safety Buyer's Guide

... for Greatest
Personal Protection
with Comfort

Hard Boiled Hat

Fiberglass molded crown—toughest, most resilient made. Permanent molded colors, white or grey standard; phosphorescent at small extra cost, other colors in quantity orders. Full-floating, self-shaping hammock-sweatband, replaceable in seconds. Adjustable size. Light weight. Comfort unequalled. Winter liners, lamp brackets, chin straps available. Write for circular.



BULLARD SAFETY BELTS

Famous Morenci light weight design with extra safety margin. Continuous strand, super-twist webbing. No belt holes or grommets. Snub buckle. Adjustable keepers. Design adapted to belts for mining, construction, marine, petroleum and general industrial use; also in harness and saddle types. New brochure available.



DUST and SPRAY HOODS

Air supplied or respirator types. Feather-weight, tough, translucent material. Easy to clean. Full-vision, impact-resistant plastic face pieces are quickly replaceable. Airline Hood has non-fogging, no draft features; Cal. Div. Ind. Safety approved. Respirator hoods incorporate U. S. B. M. approved respirators. Other hoods approved for shot and sand-blasting; Acid Hood for safe acid handling. Write for circular.

FIRST AID KITS

Cylindrical kit ideal for use indoors or out; mount on trucks, boats, poles, walls—wherever first aid kits are required. Compact, waterproof. Contains fabric Roll-up, complete with Unit Packets of first aid materials. Other kits include full line of weatherproof and bulk package kits, Pocket Packet and Combination Belt Kits.



Wouldn't you like to receive regularly the pocket-size publication, "What's New In Safety"? It gives highlights of new safety products. Just say "add my name to your mailing list."

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Remote Control Devices Aid Atomic Progress

Devices for remote control and operation of hazardous processes in U.S. Atomic Energy installations have been largely responsible for the excellent safety records of such plants, according to Robert S. Neblett, business and construction manager of the Knolls Atomic Power Laboratory which General Electric operates for the Atomic Energy Commission.

Atomic energy work in this country has been done on the basis that the dignity of the individual is important, Mr. Neblett told a recent meeting of the machine design division of the American Society of Mechanical Engineers in Washington. "If we can't make it safe, we won't do it," has been the policy, he declared.

Everything connected with the preparation of fissionable material and with the production of power from such material, as we now envision it, must be done remotely. In some cases, he said, complicated assemblies of pipes, 20 to 30 feet long, are removed without requiring a human being to come close to them. Because it is radioactive, the pipe is buried and a new section inserted, all remotely.

"Most of this work could be done at less cost in dollars by sending in crews of men, but the cost in lives could have been enormous," said Mr. Neblett. "Through mechanical engineering we have been able to accomplish not only unique operating designs but safe maintenance procedures as well.

"We must learn to handle liquid metals at high temperature," he declared. "We must solve the problem of heat transfer rates which at the present time seem out of this world. We must not only learn how to build these atomic power plants at an economical figure, but we must learn how to operate them economically and to maintain them over long periods of time.

"The stress analysis work, the heat transfer work, the plain mechanical ingenuity required to pump liquid metals, to say nothing of the problems of how material behaves under intense radioactivity, are all major mechanical

engineering problems. However," said Mr. Neblett, "those of us in the atomic energy business feel sure that these problems will be solved. But we know that it is not an easy job, and that atomic power is certainly not just around the corner."

Calendar Contest Winners For February

First prize in the National Safety Council's Safety Calendar Contest goes this month to William F. Roeschel of Westville Grove, N. J. The theme in this contest was pedestrian safety. Mr. Roeschel's two-line rhyme was adjudged best of all those submitted. It was:

*Two lives can be wrecked by
this foolhardy 'stunt'—
The one back of the wheel and
the one out in front!*

Second prize was awarded to R. Cheyne-Stout, Orlando, Fla. His rhyme was:

*A rule is a rule is a rule is a rule,
as Gertrude Stein would say.
A fool is a fool is a fool is a fool,
for crossing the street that way.*

Third prize was awarded to Odin Toness, Detroit, Mich., for the following rhyme:

*'I almost made it,' doesn't mean
much
If the rest of your life is spent on
a crutch.*

Thirty other awards were issued to: Mrs. Julia Palfy, Minneapolis, Minn.; Mrs. V. G. Feldbauer, housewife, St. Mary's, Pa.; John J. Kochansky, draftsman, Canonsburg, Pa.; Ralph O. Ellis, radio mechanic, Norfolk, Va.; Mrs. M. J. Reis, Darien, Conn.; W. L. Vories, Covington, Ky.; Gilbert Goetzke, machinist, West Allis, Wis.; Mrs. Loretto Reilly, clerk, Fort Pierce, Fla.; Kearn Dugan, Chicago, Ill.; Mrs. Fred Johnson, Akron, Ohio; Mrs. W. V. Albaugh, Baltimore, Md.; G. V. Bauer, Denver, Colo.; Mrs. Paul Ownby, Salt Lake City, Utah; Mrs. Abbott B. Davis, Saugatuck, Mich.; Kathryn Long, Chattanooga, Tenn.; C. M. Andrews, Delavan, Kansas; J. K. Felker, foreman, Gibsonburg, Ohio; Margaret Greene, nurse, Hinsdale, Ill.; R. T. Gidley, Dallas, Texas; Lee Hill, mail clerk, Sidell, Ill.; H. A. Bohall, Sharples Chemicals, Inc., Wyandotte, Mich.; Cecelia Renda, National Mfg. Corp., Tonawanda, N. Y.; Thomas B. Bates, Missouri Portland Cement Co., Independence, Mo.; Margaret A. Taylor, Howard Smith Paper Mills, Ltd., Cornwall, Ont.; J. P. Crispin, Abitibi Power & Paper Co., Ltd., Sturgeon Falls, Ont.; Clarence Maxwell, General Mills, Inc., K. C., Mo.; Alton F. Munnell, United States Rubber Co., Detroit, Mich.; James W. Adam, The Steel Company of Canada, Ltd., Hamilton, Ont.; Sam Feathers, The Steel Company of Canada, Ltd., Hamilton, Ont.; Mrs. Grace Hartley, Aberdeen, S. D.

A new contest is offered each month through the safety calendar.

OUT OUR WAY



LABORATORY-TESTED for consistent quality **SOL-SPEEDI-DRI**

SLIPPERY FLOORS VAMOOSE when you use Sol-Speedi-Dri. It's America's largest-selling oil and grease absorbent. For good reason. Pound for pound, price for price, you can't buy a better product. Production controls and selective mining see to that...and laboratory tests safeguard its consistent quality. Adequate warehouse stocks in cities throughout the country — speedy delivery everywhere. Standardize on Sol-Speedi-Dri!

SPEEDI-DRI CORP., 218 W. Washington Sq., Philadelphia 5, Pa.



Warehouse stocks maintained in principal cities of the United States and Canada.

Inquirers in New York, New England and New Jersey should write to Speedi-Dri Corp. Elsewhere in U.S. to Waverly Petroleum Products Co., 1724 Chestnut St., Philadelphia 3, Pa.

FREE SAMPLE: Fill out the coupon and mail today for big, free sample.

Name

Address

City State

NSN 4-36

COMING EVENTS

In the Field of Safety

Apr. 5-8, Charleston, W. Va.

West Virginia Annual State-wide Safety Conference. W. C. Easley, managing director, West Virginia Safety and Health Council, 316-17 Masonic Bldg., Charleston, W. Va.

Apr. 11-13, Columbus, Ohio

Twentieth All Ohio Safety Congress and Exhibit. (Neil House). James H. Fluker, chairman; G. S. Kallenbaugh, congress manager, 65 South Front St., Columbus 15, Ohio.

Apr. 13, Bridgeport, Conn.

Fifth Annual Connecticut Industrial Safety Conference. Donald Ackley, c/o G. & O. Manufacturing Co., New Haven, Conn.

Apr. 12-13, Buffalo, N. Y.

Tenth Annual Western New York Safety Conference. (Hotel Statler). Eugene C. Hohlstein, c/o Buflavak Div., Blaw-Knox Co., 1543 Fillmore Ave., Buffalo, N. Y.

Apr. 18-20, St. Louis, Mo.

Central States Safety Conference. (Hotel Jefferson). Reyburn Hoffman, secretary-manager, The Safety Council of Greater St. Louis, 511 Locust Street, St. Louis, Mo.

Apr. 19-20, Louisville, Ky.

Fifth Kentucky State-wide Safety Conference and Exhibit. (Kentucky Hotel). Estel Hack, managing director, Louisville Safety Council, Speed Bldg., Louisville 2, Ky.

Apr. 23-29, Chicago

American Association of Industrial Physicians and Surgeons, 35th Annual Convention. (Hotel Sherman). Dr. Edward C. Holmblad, 28 East Jackson Blvd., Chicago 4.

Apr. 23-29, Chicago

American Association of Industrial Nurses, Annual Conference. (Hotel Sherman). American Association of Industrial Nurses, Inc., Room 909, 654 Madison Ave., New York 21.

Apr. 24-25, Toronto, Ont.

Annual Convention, International Accident Prevention Associations. (Royal York Hotel). R. B. Morley, general manager, International Accident Prevention Associations, 600 Bay St., Toronto 2, Canada.

May 2-4, Chicago

Twenty-seventh Annual Midwest Safety Show. (Hotel Sherman). Joseph

F. Stech, manager, Greater Chicago Safety Council, 10 North Clark Street, Chicago 2.

May 2, Allentown, Pa.

Twenty-third Annual Eastern Pennsylvania Safety Conference. Harry C. Woods, executive secretary, Lehigh Valley Safety Council, 602 East 3rd Street, Bethlehem, Pa.

May 3-5, Charlotte, N. C.

Twentieth Annual North Carolina State-wide Industrial Safety Conference (Hotel Charlotte). H. S. Baucum, safety director, North Carolina Industrial Commission, Raleigh, N. C.

May 4-5, Baltimore, Md.

Maryland Safety and Health Conference and Exhibit. (Lord Baltimore Hotel). Joseph A. Haller, Director of Safety, State Industrial Commission, Equitable Bldg., Baltimore 2, Md.

May 11-12, Oklahoma City, Okla.

Oklahoma State Safety Conference. (Skirvin Hotel). Glenn V. Carmichael, manager, Oklahoma Safety Council, 1600 N. W. 23rd, Oklahoma City, Okla.

May 18-19, Duluth, Minn.

Lake Superior Mines Safety Council, 26th Annual Conference. (Hotel Duluth). John A. Johnson, supervising engineer, U. S. Bureau of Mines, 18 Federal Bldg., Duluth 2, Minn.

June 1-3, Roanoke, Va.

Sixteenth Annual Virginia State-wide Safety Conference. (Hotel Roanoke). William M. Myers, managing director, Richmond Safety Council, Allison Bldg., Richmond 19, Va.

June 1-3, Longview, Wash.

15th Annual Western Forest Products Safety Conference. (Monticello Hotel). Byron Oyster (chairman), Weyerhaeuser Timber Co., Box 1645, Tacoma, Wash. C. R. Rustemeyer, Canadian Forest Products, Ltd., 510 West Hastings, Vancouver, B. C.

June 7-9, Pittsburgh, Pa.

Twenty-fifth Annual Western Pennsylvania Safety Engineering Conference. (William Penn Hotel). Harry H. Brainerd, executive manager, Western Pennsylvania Safety Council, Chamber of Commerce Building, Pittsburgh 19, Pa.

June 12-13, Fargo, N. D.

Third Annual North Dakota Safety Conference. Paul Drew, safety director, North Dakota State Highway Dept., Bismarck, N. D.

June 18-21, Boise, Idaho

Western Safety Conference. Paul V. Black, president, c/o Idaho Compensation Co., Boise, Idaho.

Sept. 14-15, York Harbor, Me.

Twenty-third Annual Maine State Safety Conference. (Marshall House). A. F. Minchin, director, Industrial Safety Division, Department of Labor and Industry, Augusta, Me.

Oct. 16-20, Chicago

Thirty-eighth National Safety Congress and Exposition. (Stevens Hotel). R. L. Forney, general secretary, National Safety Council, 20 North Wacker Drive, Chicago 6.

Safety Reminders at Air Base



Wherever United States Military Forces have established bases, you will find them conducting an energetic campaign against accidents. At the Air Base of the USAFE at Neubiberg, Germany, the above

display has been erected. Supplementing the National Safety Council Jumbo Poster and the scoreboard for the records of the various units is a wrecked vehicle as an additional reminder.

Announcing...

A PROVED PLAN

To Put New Life and Action Into Your Employee SAFETY Program



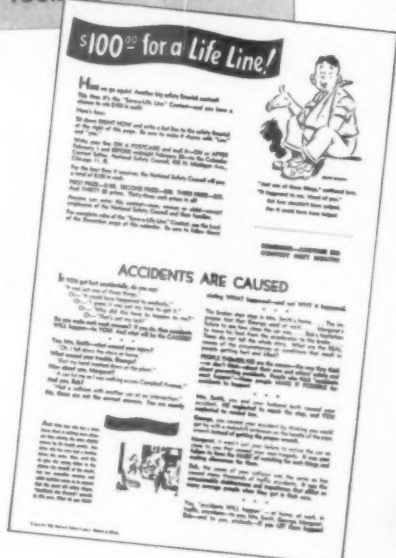
Here's a low-cost way to make SAFETY more interesting and appealing to employees . . . in their homes as well as in your plant.

It's this simple. You just give each of your employees the beautiful new National Safety Council SAFETY CALENDAR for 1951 imprinted with your company name. Twelve full-color, human-interest paintings like the January sheet pictured here will dramatize safety in a way that makes the Calendar welcome in every home. This appeal is combined with practical safety suggestions on the back of each Calendar sheet as illustrated, to keep your employees and their families safety-minded the year around.

CASH PRIZE CONTEST MAKES THE PLAN CLICK

To assure interest and action in the program month after month, the Calendar features a Safety Limerick Contest conducted by the Council which offers cash prizes of \$100, \$50, \$25 and thirty \$5 prizes every month for simple last lines to limericks promoting safety ideas. Here is the "clinker" that has produced such remarkable results, as proved by hundreds of thousands of entries sent to the Council by employees and their families every year.

So that more companies can give this Calendar to their employees and gain its proved "safety merchandising" benefits, the National Safety Council is introducing the 1951 Calendar now on a basis that makes it a more attractive investment than ever before.



SEE SPECIAL OFFER ON NEXT PAGE!



Early orders will help us to make the first printing of the SAFETY CALENDAR for 1951 more economical. Accordingly, we will pass on a saving to you in the form of a 5% DISCOUNT if you will send in your reservation now on the form below on the basis of the following price schedule.

PRICE SCHEDULE		MEMBER		NON-MEMBER	
Quantity	F.O.B. CHICAGO	Packed Flat in Bulk	In Mailing Tubes	Packed Flat in Bulk	In Mailing Tubes
1 to 9	50¢ each	55¢ each	60¢ each	65¢ each
10 to 199	48¢ each	51¢ each	55¢ each	58¢ each
200 to 999	40¢ each	43¢ each	45¢ each	48¢ each
1,000 to 9,999	36¢ each	39¢ each	39¢ each	42¢ each
10,000 or more	33¢ each	36¢ each	36¢ each	39¢ each

5% DISCOUNT will be allowed on all orders postmarked not later than May 31, 1950, provided that payment is made on or before December 1, 1950. Delivery will be made in November unless otherwise specified.

NATIONAL SAFETY COUNCIL

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CHICAGO 6, ILLINOIS

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SPECIAL RESERVATION FORM Today!*

National Safety Council

20 North Wacker Drive
Chicago 6, Illinois

We want to take advantage of the 5% DISCOUNT on our requirements for the SAFETY CALENDAR for 1951. Please reserve Calendars in our name and send us your regular order form so we can give you imprinting and shipping instructions.

We understand that we will receive a sample Calendar as soon as available and can then increase or decrease this reservation, or cancel it if the Calendar does not come up to our expectations.

Name Title

Company Name

Address

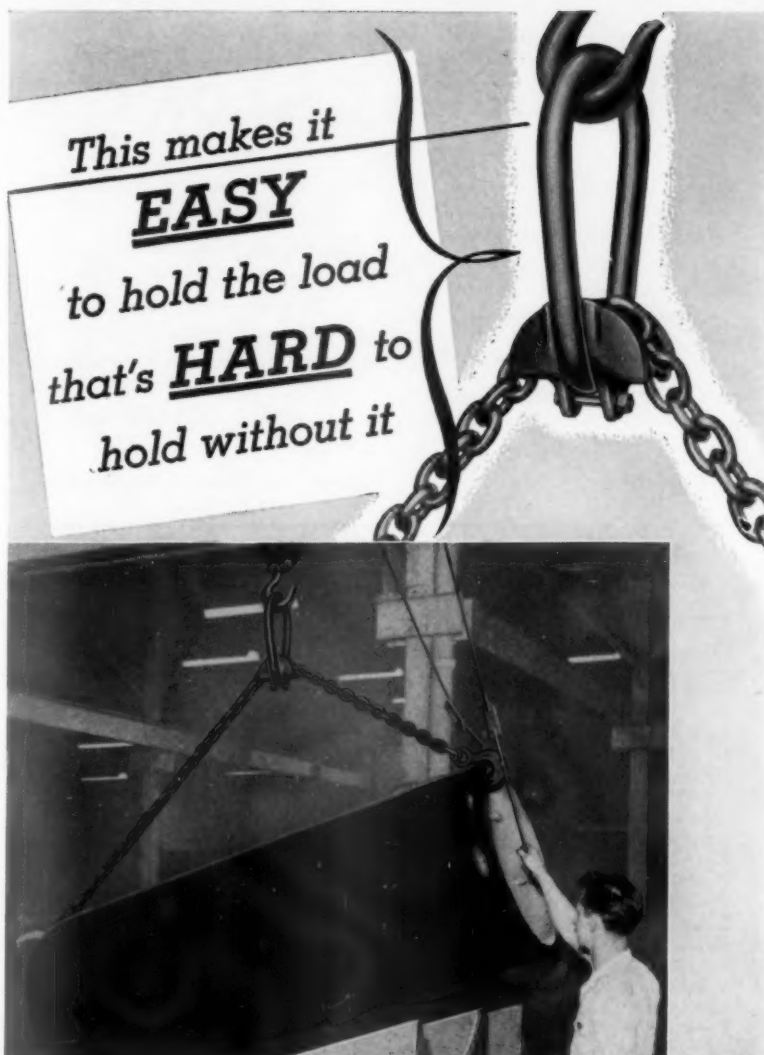
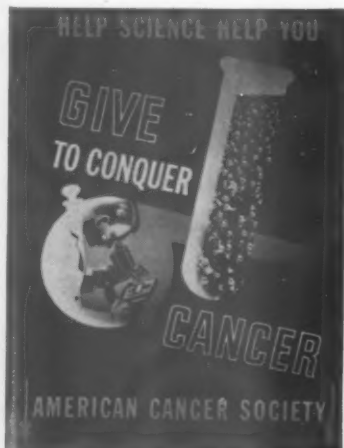
City, Zone, State.....

Fellowship to Study Safety Training Programs

The Arthur Williams Fellowship grant of \$1,500 to the New York University Center for Safety Education to undertake research studies on the development of industrial safety training programs for industries and for colleges has been announced by the American Museum of Safety.

This is the fourth such grant that has been made by the Museum to the Center. The first was in 1945, when John V. Grimaldi carried on research and prepared the publication *Industrial Rehabilitation*; a second was utilized in 1946 for the development of curriculum materials for the New York City Schools, and a third in 1947 to endow a study and publication on safety in air transportation. The latter has not yet been published.

Invitations to serve on an advisory committee for the study will be extended to organizations interested in industrial safety training: engineering colleges, American Society of Safety Engineers, National Safety Council, Greater New York Safety Council, Engineering Committee of the Association of Casualty and Surety Companies, Veterans of Safety, President's Industrial Safety Conference, National Commission on Safety Education, the Safety Director's Office, Department of the Army, the Ground Safety Office, Department of the Air Force, and the U. S. Department of Labor. Dr. Walter A. Cutter will serve as director of the proposed study.



The New ACCO Sling Chain Adjuster —a Safety Measure and a Work Saver

• It comes as a complete unit—Pear Shaped Link, Adjuster and Single Sling with hooks at both ends. Slings of "85" and "125" ENDWELDUR steel chain—from $\frac{1}{2}$ " to $\frac{3}{8}$ "—Link and Adjuster sized to correspond to size of chain. Length of chain to your specification.

Your AMERICAN CHAIN distributor can give you detailed information—capacities, recommended sizes, prices, etc.

ACCO York, Pa., Chicago, Denver, Detroit, Los Angeles, New York, Philadelphia, Pittsburgh, Portland, San Francisco, Bridgeport, Conn.



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In Business for Your Safety

Report Progress On Congress Plans

OCTOBER 16 to 20 will be the dates of the 38th National Safety Congress and Exposition and four of Chicago's leading hotels will house the more than 150 sessions scheduled for the week.

Sessions will be divided among four hotels—the Stevens, Congress, La Salle and Morrison. Registra-

tion desks will be maintained at all four hotels.

The guest room situation is expected to be "normal" or nearly so. However, to secure the more centrally located accommodations, delegates are advised to make reservations early. All requests for rooms should be addressed to

Housing Bureau, National Safety Council.

The Safety Exposition will be larger and more comprehensive than ever. This year it will be necessary to make use of the combined facilities of the Exhibit Hall of The Stevens and the Casino Room of the nearby Congress Hotel.

Date and Hotel Assignments

	Hotel	Oct. 16 Monday		Oct. 17 Tuesday		Oct. 18 Wednesday		Oct. 19 Thursday		Oct. 20 Friday
		AM	PM	AM	PM	AM	PM	AM	PM	AM
Sectional Sessions										
Aeronautical Ind.	Stevens		X				X			
Air Transport	Stevens				X				X	
Auto. & Mach. Shop	Congress		X				X			
Cement & Quarry	Stevens						X		X	
Chemical	Stevens		X		X		X			
Coal Mining	Stevens		X		X		X		X	
Commercial Vehicle	LaSalle			X	X	X	X	X-jt.	X	
Construction	Stevens				X		X			
Electrical Equip't.	Congress						X		X	
Food	Morrison				X		X		X	
Glass & Ceramics	Congress		X		X					
Industrial Nursing	LaSalle		X		X				X	
Marine	Morrison				X		X		X	
Meat Pkg.-Tng. & L.	Stevens		X		X					
Metals	Stevens		X		X		L		X	
Mining	Stevens		X		X		X		X	
Petroleum	Stevens		X		X		X			
Power Press	Congress				X				X	
Printing & Publ'g.	Stevens								X	
Public Employee Com.	Stevens		X							
Public Utilities	Stevens				X				X	
Pulp & Paper	Stevens		X		X		X		X	
Railroad	Morrison				X		X		X	
Rubber	Stevens				X		X			
Textile	Congress				X		X		X	
Traffic	Congress		X	X	X	X	X	X	X	
Transit	LaSalle				X	X	X	X-jt.		
Wood Products	Congress		X		X		X			
Divisional Sessions										
Farm	LaSalle			X	X	X	X	X	X	
Home	LaSalle					X	X	X		
School & College	Morrison		X	X	X	X	X	X	X	
Women's Activities	Blackstone		X							
A.S.S.E.-Subject Sessions										
A.S.S.E. Ann. Mtg.	Stevens			X						
Subject Sessions	Stevens & Congress					X		X		X
General Sessions										
Annual Council Mtg.	Stevens	X								
Banquet	Stevens						X Eve.			
Early Morn. Sess.	Stevens			X		X		X		X

MODEL PV 98

Same specifications as PV 96 except for extra-length wrist for use where spray, dip or splash are prevalent.



PLASTIC GLOVES?

MODEL PV 96

Fully vinyl resin coated, knit-wrist, liquid proof. Rates "excellent" in tests for abrasion resistance.



Compare the Quality and Value of

HOOD

first!

HOOD

for NEW Safety plus

HOOD RUBBER CO.
Watertown, Mass.

If you have found that plastic coated gloves are superior to Neoprene or rubber coated gloves for special jobs in your plant, then be sure you see the Hood line first!

Long a leader in the manufacture of industrial rubber gloves, Hood has applied all its years of experience, manufacturing skill and "know-how" in the production of these plastic coated gloves so that you, who are looking for superior quality and value, can be assured you're getting it when you choose Hood.

Let this Hood reputation for longer-lasting, more comfortable, more flexible industrial gloves be your guide in purchasing *whatever* type you may prefer... Neoprene, Rubber or Plastic coated. Write for catalog today!

Sensational! New!
SALT TABLETS

WILL NOT CAUSE NAUSEA OR STOMACH DISTRESS

PEP-UP Impregnated (controlled dissolving) **SALT TABLETS** are produced by an exclusive patented process which forms a complete coating around each crystal of salt. The controlled dissolving releases some salt immediately, which insures quick salt replacement, but not in sufficient quantities to cause nausea.

"PEP-UP" ENTERIC COATED SALT TABLETS — We also manufacture the original patented **"PEP-UP"** Enteric Coated Salt Tablets. Used for years by many of the largest firms in the country, these tablets have employee acceptance and are low in price.

THE PACKAGE IS THE DISPENSER — **"PEP-UP"** Tablets come to you in sanitary, factory-sealed dispensers at no extra cost. **THROW AWAY DISPENSER WHEN EMPTY. HANG UP A NEW ONE.** Write for literature and prices.



UNITED STATES SAFETY SERVICE CO.
KANSAS CITY 6, MO. • BRANCHES IN PRINCIPAL INDUSTRIAL CITIES

Green Cross News . .

Activities of Local Safety Councils and Chapters

Your Local NSC Chapter Invites Your Help

In the firm belief that plant operators have a direct interest in the safety and security of their employees, not only while they are at work but also when they are away from their jobs, safety engineers and plant supervisors in many cities are taking an active interest in their community safety programs.

In most cities where there are community councils or Chapters of the National Safety Council, leading safety engineers work actively on local safety projects, as volunteer committee members, chairmen, or officers of the organization. Also often they direct "off-the-job" safety activities among employees of their own organizations.

In many communities that now have successful community safety councils, the organization of the council was made possible through the initiative and hard work of the industrial safety engineers.

They usually assume responsibility for the industrial safety activities and participate in the all-important traffic home and school safety work and other programs of the organization.

They have been quick to accept the challenge of the "off-the-job" problem—borne out by our national statistics, which show that for every worker killed in an accident while at his regular employment, two other workers are killed while off duty—in traffic, at home, in recreational or other off-the-job pursuits.

The valued help of the trained industrial safety engineers is always welcomed enthusiastically by the local council or Chapter manager. The success of a local safety organization depends in large measure on the work of its volunteer members. In New York City, for example, there are more than 250 volunteer workers actively assisting in the work of the Council in its varied fields of operation. At least half of these are

prominent industrial safety men and insurance engineers. Many direct the programs for nationally known companies that operate branches in various parts of the country.

New Libraries for Chapters

Complete new safety libraries are being shipped to all Class A Councils and Chapters that have enrolled under the new Chapter Participation Plan. On March 1st, more than 70 organizations, mostly Class A chartered councils, had sent in their agreements.

Each library consists of approximately 150 folders, tabbed and classified, containing carefully selected materials with cross-reference sheets as needed and with a complete mimeographed index.

The libraries have been prepared in either the legal or letter size folders to fit the cabinets available in the local offices. Each organization has been asked to designate the size wanted.

The work is being done in the National Safety Council Library, working in cooperation with the Field Organization in the selection of materials. The NSC library will supervise the work of keeping the Chapter libraries up to date and all future material that is sent out will be indexed for filing.

The new library is one of several important services made possible through the wide acceptance of the Chapter plan.

Rochester Reports

Constructive progress is evidenced in the annual report of the Rochester, N. Y., Safety Council, made by President Sydney E. Clarke at the Council's Annual Meeting held recently in that city. Of particular interest is the report on the successful effort during 1949 in mobilizing the important forces of the community having an interest in accident prevention, to work with the Safety Council in its programs.

Henry Joins Mass. Staff

George M. (Mel) Henry was recently appointed Safety Supervisor of the Massachusetts Safety



President Ned H. Dearborn inspects the first chapter library to be prepared for a National Safety Council Chapter. This one went to the San Jose-Santa Clara (California) Chapter. Explaining the service are Library Director Ruth Parks (left) and Edith Simon, Chapter librarian of the headquarters staff.

Economy

... one of many merits



THE WORDS of praise which are constantly applied to Pax-Lano-Sav Heavy Duty by legions of happy users to describe its merits have given it a singular place of honor among all fine skin cleansers.

Words like "superb quality," "dependable safety," "unsurpassed cleansing ability," and a host of others occur in hundreds of unsolicited testimonials. However, customers of many years of use-experience with Pax-Lano-Sav Heavy Duty need no superlatives to emphasize their satisfaction. Continued use is their recommendation for its excellence.

There is also another potent word which cus-

tomers frequently use in recommending Pax-Lano-Sav Heavy Duty to others. That word is "Economy." Its marvelous formulation, the skillful blending of its many fine ingredients, its outstanding cleansing efficiency, have actually reduced the cost of usage far below that of many other occupational skin cleansers which sell for less per pound. The use of Pax-Lano-Sav Heavy Duty convincingly demonstrates that "Economy" is also one of its many merits.

Try this remarkable skin cleanser yourself. Then you too will seek words of commendation to describe a wonderful experience in what an occupational skin cleanser should and can do.



PAX-LANO-SAV—a superior skin emollient combining lanolin and other special skin normalizers.

The Pax trademark symbolizes a deep-rooted tradition of superlative quality maintained through a quarter century of continuous research and development.

G. H. PACKWOOD MANUFACTURING CO. • 1545-55 TOWER GROVE AVE. • ST. LOUIS 10, MO.

Manufacturers of Fine Industrial Skin Cleansers

**Trademark of G. H. Packwood Mfg. Co.*

In addition to PAX-LANO-SAV HEAVY DUTY, PAX also offers the following powdered or granulated quality skin cleansers: PAX CORN-TEX•PAX HYSPEED•DICTATOR SPECIAL PURPOSE•BORAPAX•SUPER-X•VELVAPAX LIGHT DUTY•OFFICE-PAX•PAX MECHANICS. Also available are PAX WATERLESS and PAX HECTO INK CLEANSING CREAM •PAX SKIN CLEANSER ECONOMIZER DISPENSERS•and many other fine PAX Products.

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INSTANTLY**
with

BUFFALO
better-built.

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FIRE EXTINGUISHERS**
with
SQUEEZE GRIP VALVE



Portable Carbon
Dioxide Extinguishers in 2½, 5,
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and 100 lb. sizes.

Liberates a clean, dry, odorless, inert gas under high pressure without pumping. Snuffs out flames in seconds.

Especially effective on highly inflammable liquids — gasoline, oils, and greases, alcohol, solvents, paint, lacquer, etc.

Safe and certain in fighting fires of electric origin — a non-conductor of electricity.

Non-damaging to any equipment, finish, fabric or other material with which it may come in contact.

Fully effective indoors or out — for Class B and C fires. Won't freeze or deteriorate. Improved Squeeze Grip Valve, pressure-seat type with recoil preventors and safety pressure relief disc.

Approved by Underwriters Laboratories.

Buy from your local Buffalo dealer. If unable to secure, please write us for name of nearest distributor.

Established 1895

BUFFALO FIRE APPLIANCE
CORPORATION
DAYTON 1, OHIO

Council. He will direct the activities of the Highway Division and coordinate in other programs of the Council. Henry is a Naval Veteran, a graduate of Newark Tech, and has taken safety courses at local universities and at New York University. He has been safety director for the White Brothers Milk Company of North Quincy for the past six years.

Union Joins Chapter

Chauffeurs' Union Local No. 923 of Alameda County (Cal.) recently distributed 10,000 four-page leaflets to taxi passengers entitled, "Your Pleasure—Our Command." While the general theme is public relations, safety is emphasized in strong personalized copy that points out the driver's responsibility to provide a safe trip as well as a comfortable journey. Incidentally every member of this union also holds a \$1.00 membership in the East Bay Chapter of NSC.

Can You Afford It?

The Sioux Falls Safety Council (S. D.) is giving wide distribution to a new leaflet, "Can You Afford an Accident?". The pamphlet describes the traffic accident experience of Sioux Falls and Minnehaha County and translates the statistics into cash figures. These costs amounted to \$617,655 for the year ending November 30, 1949. The leaflet was printed through the courtesy of the Sioux Falls plant of John Morrell & Co. and the county treasurer has been assisting the Council in county-wide distribution.

Fort Wayne Wins Again

The Safety Council of the Fort Wayne Chamber of Commerce has won fourth place in the National Fire Protection Association's Annual "Fire Prevention Week" contest. The Fort Wayne entry was in competition with 2500 towns and cities throughout the country. Fire prevention is an important activity of the Chamber in Fort Wayne and the Safety Division of the Council, under the management of Irv Denton, directs the activity.

Safety Council in Germany

A. M. Baltzer, assistant manager of the National Safety Council Industrial Department, recently went

to Germany at the request of the U. S. Air Force to make a safety inspection of five Air Force bases. The city of Wiesbaden (65,000 population) is the Air Force Headquarters for the European Theatre and the Military Post has a full time civilian safety engineer, Odell Wood. Mr. Baltzer found that Wood is also president of the "Wiesbaden Joint Safety Council." The organization, which cooperates closely with the air force, has been instrumental in having stop and go lights installed at hazardous intersections and maintains a large scale accident spot map. The Council has an executive secretary and all major traffic hazards and accidents are discussed regularly with civil and enforcement officials, both Germans and Americans. As might be expected, many special problems arise, such as the bilingual problem, the basic differences in U. S. and European traffic regulations, signs, etc.

Stone Leaves Springfield

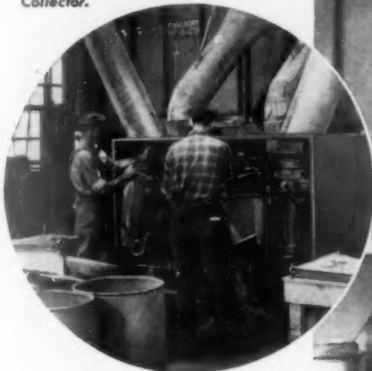
Robert Stone, who has been assistant manager of the Hampden County Accident Prevention Council in Springfield, Mass., resigned recently to locate in California where he expects to continue his work in the field of safety. His wife and family are already located on the West coast and Bob expects to join them soon. Stone, who saw lots of action as a pilot in the late war, organized the Aviation Section of the Hampden County Council.

Governor to Address Industrial Conference

Governor Earl Warren has been announced as the keynote speaker at the California Governor's Industrial Safety Conference set for Los Angeles on April 12 and 13, when two thousand leaders in labor and management will convene to take positive steps to reduce occupational injuries in the State.

The action committees formed during the preliminary conference last October have been actively analyzing the occupational injury problem and publicizing it throughout the length and breadth of the State.

NATIONAL ALUMINATE'S PANGBORN DUST COLLECTOR
which stops dust from packaging operation. At left: Close-up of packaging machine. Note special duct work for Collector.



→ Pangborn DUST CONTROL *saves National Aluminate \$14,859 a year*

\$14,859... that's how much Pangborn Dust Control saves The National Aluminate Corp. of Chicago, Ill. *each year!* Chemicals, used to make NALCO products (which prevent scale formation in boilers, etc.) are recovered by five Pangborn Collectors to the tune of 3900 lbs. a day! At current prices for raw material that spells \$58.50 a day, or a \$14,859 profit each year. As L. A. Scheidler, plant superintendent, says: "We couldn't operate without Pangborn Dust Control... the collectors have paid for themselves!"

HOW ABOUT YOUR PLANT?

Unknown to you, dust may be costing you money. Find out... let us make a "dust pocket" survey of your plant at no obligation! Pangborn engineers show you how Pangborn Dust Control can save you money. For full information write for Bulletin 909A to: PANGBORN CORPORATION, 290 Pangborn Blvd., Hagerstown, Md.

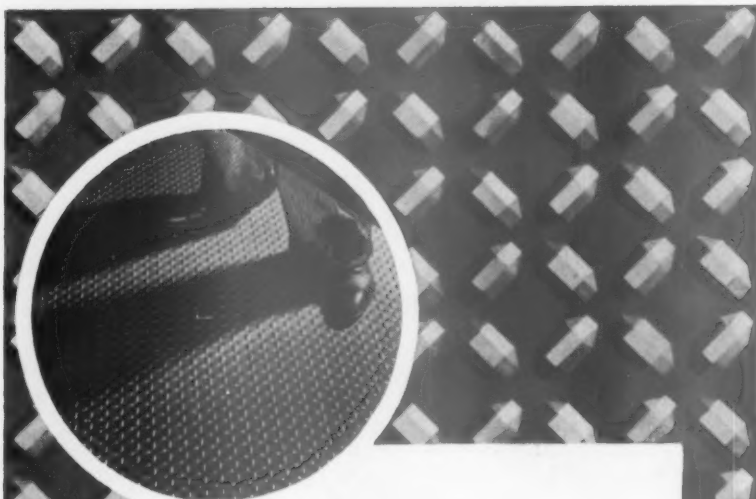
Look to Pangborn for the latest developments in Dust Control and Blast Cleaning Equipment.



STOP THE DUST HOG
from stealing profits with

Pangborn

DUST CONTROL



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Safe . . . Wet or Dry!

● U·S·S Multigrip Floor Plate offers sure footing and positive traction in every direction. Men work in safety . . . vehicles roll straight and true. There are no gutters to catch a narrow-wheeled vehicle . . . wheels roll on the risers not *between* them.

The flat-topped risers are evenly distributed to give full support to the foot. They're comfortable to walk on, safe to work on. And Multigrip is permanent. First cost is last cost.

For a safe, durable, economical flooring for your factory or for the equipment you make, use U·S·S Multigrip Floor Plate. Get further information about Multigrip from your nearest steel warehouse or write to us direct.

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Southern Distributors

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UNITED STATES STEEL

The President's Medal

*Awards made by the National Safety
Council for resuscitation by the Prone
Pressure Method*

ROY E. GAUT, substation operator, and JOHN A. MORRISON, engineering records clerk, Commonwealth Edison Co., Chicago—drowning.

JOHN KRIWIEL, mechanic, Commonwealth Edison Co., Chicago—heart attack.

ROBERT M. BARR, tree surgeon, Davey Tree Expert Co. of Canada, Ltd., Buckhorn, Ontario—electric shock.

JAMES B. BARNES, lineman, Kentucky Utilities Co., Lexington, Ky.—electric shock.

MAX D. WILLIAMSON, forest ranger, U. S. Forest Service, Soda Springs, Calif.—drowning.

HOWARD FRANK LAMBERT, serviceman, California Electric Power Co., Bishop, Calif.—drowning.

EDWARD GAMBLING, senior operator, Preston Water & Light Commission, Preston, Ontario—drowning.

JOSEPH L. MCGUIRE, lineman, Menominee & Marinette Light & Traction Co., Menominee, Mich.—electric shock.

CLYDE D. CASS, switchboard operator, Public Service Co. of Indiana, Inc., Sandborn, Ind.—electric shock.

JAMES HENRY HARDING, lineman, West Penn Power Co., Hopwood, Pa., and PAUL O. MAGER, sub-foreman, Uniontown, Pa.—asphyxiation.

Welding Conference at Ohio State University

The welding engineering department at Ohio State University, Columbus, has announced completion of the program for the 11th meeting of the Ohio State Welding Engineering Conference.

Some 300 engineers, designers and production supervisors from Ohio and neighboring states are expected to attend the campus meeting Friday and Saturday, April 14 and 15. This year's con-

Ampco's all-purpose bung wrench fits 17 different closures. It's the ideal safety tool for opening drums of gasoline and dozens of other inflammable materials.

The *Cheapest* Insurance You Can Buy

...Ampco Safety Tools for every
job where a spark spells disaster

For hazardous locations, a few dollars invested in the right Ampco tool can prevent thousands of dollars worth of property damage — lost time and lost lives!

That's why Factory Mutual Laboratories and other safety authorities approve and recommend Ampco Safety Tools. Select the right tool for every job from the more than 400 individual items that make Ampco the world's most complete line of safety tools. Enjoy lower insurance rates — and plant-wide peace of mind that builds greater job efficiency!

How to choose Safety Tools



For tools subject to impact and/or torque — specify tools of Ampco Metal.



For jobs around acetylene and similar gases — specify Ampco Monel® tools.

*Trademark International Nickel Co.



For tools with cutting edges and gripping teeth — Ampco beryllium copper.



Ampco Metal, Inc.

Dept. NS-4 • Milwaukee 4, Wisconsin

West of the Rockies, it's the Ampco Burbank Plant, Burbank, Cal.

NEW!

A 29" wide, "aisle-sized" power sweeper with **BIG** sweeper advantages



TENNANT

MODEL
24

POWER SWEEPER

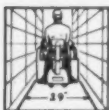
Here, for the first time, is big sweeper capacity . . . in an aisle-sized TENNANT Power Sweeper less than 29" wide! Outsweps some units having 50% wider brushes. Offers your plant NEW advantages . . . in time-saving performance . . . easy handling . . . clean sweeping at all speeds (2 to 8 mph). Rugged, vacuum-equipped, easy to use.



SWEEPS OVER 43,500 SQ. FT. PER HOUR. Cuts your floor sweeping costs! Sweeps 24" path; does a faster, cleaner job than big handsweeping crew.



HAS VACUUM DUST CONTROL—aids plant hygiene; avoids dust nuisance. Brush rotates inside vacuumized compartment!



SWEEPS IN NARROW AISLES. Less than 29" wide, sweeper easily cleans narrow aisles on-the-run, as well as open areas. Easy front-wheel steering.



IS GEARED FOR ALL JOBS... HAS 2-SPEED TRANSMISSION so brush-and-vacuum are efficient at all speeds! Also REVERSE gear and AUTOMATIC clutch.

Write today
FOR FULL DETAILS



G. H. TENNANT CO.

2550 N. 2nd St., Minneapolis 11, Minn.

Please send NEW ILLUSTRATED BULLETIN describing your Tennant Model 24 Power Sweeper. Include cost-saving data.

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CREATORS OF THE TENNANT SYSTEM OF FLOOR MAINTENANCE—MANUFACTURERS OF EQUIPMENT AND MATERIALS FOR MAINTENANCE OF FLOORS, DECKS, ROOFS, HIGHWAYS
OFFICES IN PRINCIPAL CITIES

ference theme is "Economy in Design and Production."

Informal luncheons are planned on the campus for both days of the conference. Downtown headquarters for the conference will be the Fort Hayes Hotel, and conference visitors should send their room reservations directly to the Fort Hayes. Reservations for the conference can be made by writing the Department of Welding Engineering, Ohio State University, Columbus 10, Ohio.

ASKED and ANSWERED

Assistance with problems of accident prevention and industrial health is offered by National Safety Council. All inquiries are answered by mail and a few topics are selected for publication.

Flashback Screens

Question: What kind of "flashback screens" could be installed in air ducts to prevent flame from flashing back into the ducts?

Answer: Fire prevention authorities do not look with favor upon the use of flashback screens in air ducts, since an effective installation would be too expensive, both in first cost and maintenance, to be practical.

It is pointed out that, to be effective, the screen must be of very fine mesh in order to act as a barrier to flame. This would restrict the flow of air, necessitating larger ducts and more powerful blowers. The screen also would act as a trap for dust, thereby involving an endless maintenance problem. Any mesh coarse enough to permit free passage of dust-laden air would not prevent flashbacks.

Oil Heaters

Question: What are the rules for safe use of portable kerosene heaters?

Answer: Investigation of contributing factors in oil heater tragedies has led the National Board of Fire Underwriters to make the following recommendations:

Never fill or carry heater while it is lighted.

See that the latch holding the

top part of tip-over type heaters to the bottom part is securely fastened.

Use only heaters approved by Underwriters' Laboratories.

Keep all parts clean; use only approved type of fuel; fill them in the open; locate them properly in the room, away from flammables; provide adequate ventilation.

Right Eye Saved Twice

Joseph Besch, punch press operator at the Paper Calmenson Company, St. Paul, Minn., is now wearing his third pair of safety glasses. His two previous pairs had the right lenses shattered.

In July, 1949, Besch was struck by a swinging crane chain which had slipped while hoisting material and the goggle lens took the full force of the blow. Safety Director Gerald Hammond posted the damaged goggles and the story on the bulletin board.

In December, Besch's right eye was again saved. While punching steel the punch broke and a fragment ricocheted from the bed of the press and struck the lens.

The company now has 100 per cent eye coverage and reports the saving of five eyes.

Install Plant to Purify Waste Water

Completion of a new water treatment plant to purify waste water from the company's steel mills along the Schuylkill River has been announced by the Alan Wood Steel Company, Conshohocken, Pa.

The installation, the company states, not only eliminates the discharge of contaminating waste products into the river but also acts as a water conservation unit. Purified water can be circulated repeatedly to the mill supply system. Water is drawn from the river only to make up for losses and to keep the system up to normal operating capacity. Water from the mills is diverted to the river only when the ready supply exceeds demands and the water that may be returned to the river is purified.

The installation has been under the State of Pennsylvania's stream pollution abatement program.



with a **BLAW-KNOX**
FIRE PROTECTION SYSTEM*



FOG NOZZLE



DELUGE VALVE



STANDARD HEAD



"LITTLE JOEY SPRINKLER"

Whatever your needs for fire protection—indoor, outdoor or special hazard—

Blaw-Knox engineers are prepared to design and install a system of suitable type to fit your requirements. They will make a survey of your fire hazards, secure your insurance underwriters' requirements, prepare preliminary layout of a system and submit an estimate of the cost of installation without obligation.

**Deluge Systems, Wet Pipe Systems, Dry Pipe Systems, Water Spray and Fog Systems, Rate-of-Rise Sprinkler Systems, and Carbon Dioxide Extinguisher Systems.*

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Overlapping rows of practically impenetrable stainless steel strips are molded between 3 plies of cool fabric. Light, flexible, comfortable in boot or shoe. Available in 6 to 12 sizes — no half sizes.

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The Safety Library

Books, Pamphlets and Periodicals of Interest to Safety Men

Oil Industry Safety

Safety in Petroleum Refining and Related Industries. By George Armistead, Jr. Published by John G. Simmonds & Company, 1950. 416 p. Price \$10.00.

The author has taken on the rather difficult job of accumulating accepted practices, equipment standards and inspection methods in use in the oil industry. We believe he has done a creditable job in conscientiously and accurately presenting the material in a form that is easily digested.

It is admitted by the author that so broad a subject as refinery safety cannot be completely covered in the 400-odd pages of the volume. He makes no pretense that regulations or rules as set forth in his book are the only practices that may be followed but are, to his knowledge, the ones most generally accepted. The various subjects are treated in a well organized manner that makes it easy to locate information on any particular topic.

We were particularly impressed with the excellent photographs, cut-away views and drawings used to illustrate the text. It is evident the author sought and received cooperation from manufacturers, trade associations, petroleum companies, insurance organizations and others to reach the fine balance between word and picture. Excellent references at the end of each chapter show that his material was obtained from the best sources. To the reader wanting more information on a particular subject this should prove a boon, especially on problems on which there may be a number of solutions.

Basically, the book covers fundamentals of refinery safety, plant layout and construction, including storage, fire prevention and control. The appendix includes charts and tables on flammable and hazardous chemicals, fire protection standards and inspection devices and practices.

We believe anyone interested in safety in petroleum refining should

have access to this volume. It is rare that such a complete treatise on a phase of industrial safety, such as is covered in this book, is available to accident prevention engineers.

Roy G. Benson

Recorded Training Aids

Recorded, Dramatized Case Studies. Prepared by Training Services, Inc., and distributed by National Foremen's Institute, Inc., Deep River, Connecticut.

This is a relatively new type of training material. It consists of six dramatized problem stories in human relations, each recorded on two sides of a 12-inch, 76 r.p.m. record. The price of the set is \$50.00.

The titles of the cases are:

- The Case of the Disgruntled Veteran
- The Case of the Fearful Foreman
- The Case of Charlie Evans
- The Case of the Temperamental Miss Todd
- The Case of Mousy Milly
- The Case of Harrassed Harry.

Each case is presented by a cast of professional actors, building up through a series of incidents to an acute problem which the foreman is going to have to do something about. There the record stops and the discussion group is supposed to take over.

The leader is aided by a set of directions for running this type of meeting and some suggested points for discussion for each record.

Not as effective as a film, this type of presentation is more realistic than a printed case. Personnel and training directors will probably want to see and try it themselves.

Glenn F. Griffin

BOOKS AND PAMPHLETS Conferences

Resume of the Proceedings of the Sixteenth National Conference on Labor Legislation. Published

—To page 84

KREISELMAN

Bellows

RESUSCITATOR

Saves Seconds that Save Lives

USES AIR OR
OXYGEN

**Use this Emergency Equipment
Wherever Breathing Failures
Are Likely to Occur**

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- Boat Houses and Beaches ● Schools, Mines, etc.

Here is an exceptionally effective means of artificial resuscitation — so simple, so portable, and so inexpensive that one can be kept for immediate life-saving action wherever respiratory failure may occur. The Kreiselman Bellows Resuscitator weighs only two pounds, can be stored or carried as easily as a camera, and costs *many times less* than ordinary equipment. (*Anyone can operate it effectively and safely after only a few minutes' instruction!*)

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**Civic Leaders Acclaim Amazingly
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While manual first aid resuscitation is often ineffective, and ordinary equipment is too bulky and costly to be kept near every potential danger spot, Kreiselman Bellows Resuscitators can be on hand everywhere for immediate, effective artificial respiration when required. It is an invaluable supplement to major resuscitation equipment. This safe, effective, portable device quickly inflates the lungs with air or oxygen and removes carbon dioxide or toxic gases. Gases from the lungs cannot mix with oxygen in the bellows. Automatic valves and safety devices make errors impossible. It can be used easily and efficiently regardless of the patient's position.

**Developed by World-Famous
Medical Specialist**

Dr. Joseph Kreiselman, noted pioneer in modern, safe resuscitation equipment used in leading hospitals and by the Army and Navy, has developed this outstanding device. It is made by The Ohio Chemical & Surgical Equipment Co., manufacturer of internationally known Heidbrink Medical Apparatus, Ohio Medical Gases and Scanlan-Morris Hospital Equipment.

**ORDER THIS LOW-COST
PROTECTION NOW!
ONLY \$55⁰⁰**

includes bellows and
valve assembly, mask, airway,
elbow adapter, and carrying case.

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For Distinguished Service

Recent presentations of the National Safety Council's
Award of Honor for Distinguished Service to Safety

Stars indicate number of awards since the first.

Aluminum Co. of America

Alcoa Reduction Div., Alcoa, Tenn.—Injury frequency rate reduced 56 per cent and severity rate 46 per cent in 1949 as compared with 1947. The 1949 frequency rate was 19 per cent of the group average and the severity rate 30 per cent of such average. The award was presented February 15, 1950.

American Airlines, Inc.

Tulsa, Okla., Maintenance Depot—Injury frequency rate reduced 39 per cent and severity rate 75 per cent in 1949 as compared with 1948. The 1949 injury frequency rate was 33 per cent of the group average and severity rate 3 per cent of such average. The award was presented March 7, 1950.

The American Welding & Manufacturing Co.

★
Warren, Ohio—Injury frequency rate reduced 56 per cent and severity rate 89 per cent in 1948-49 as compared with 1946-47. The 1948-49 frequency rate was 14 per cent of the group average and the severity rate one-half such average. The award was presented March 21 by R. H. Ferguson, manager of safety, Republic Steel Corp., and member of the Board of Directors, National Safety Council.

Caterpillar Tractor Co.

★
Peoria, Ill.—Injury frequency rate reduced 26 per cent and severity rate 33 per cent in 1949 as compared with 1948. The 1949 frequency rate was 22 per cent of the group average and the severity rate 38 per cent of such average. The award was presented February 26 by Arthur S. Kelly, NSC Staff

representative for the Automotive & Machine Shop and Power Press Sections.

Copperweld Steel Co.

Warren, Ohio—For operating 388 days without a disabling injury as of January 12, 1950.

General Motors Corp.

★ ★ ★ ★ ★

Detroit, Mich.—Injury frequency rate reduced 19 per cent and severity rate 22 per cent in 1949 as compared with 1948. The 1949 frequency rate was 30 per cent of the group average and the severity rate 66 per cent of such average.

The Mengel Co.

★ ★

Furniture Div., Fourth Street Plant, Louisville, Ky.—For operating without a disabling injury from August 2, 1948, to December 31, 1949. The award was presented by Estel Hack, managing director, Louisville Safety Council.

Monsanto Chemical Co.

★

Texas City, Tex.—For operating throughout 1949 without a disabling injury. The award was presented February 22.

Oil Well Supply Co.

Witte Engine Works Div., Kansas City, Mo.—Injury frequency rate was reduced 93 per cent and severity rate 84 per cent in 1948 as compared with 1947. The 1948 frequency rate was 20 per cent of the group average and the severity rate 4 per cent of such average. The award was presented February 1.

Pennsylvania Salt Manufacturing Co.

Natrona, Pa.—Injury frequency rate reduced 87 per cent and se-

verity rate 98 per cent in 1948-49 as compared with 1946-47. Injury frequency rate for 1948-49 was 9 per cent of the group average and the severity rate 3 per cent of such average. The award was presented February 7 by the Western Pennsylvania Safety Council.

Shawinigan Resins Corp.

Springfield, Mass.—For operating 753 days without a disabling injury as of January 16, 1950. The award was presented March 2 by John S. Cuthbert, field representative, Eastern Region, NSC.

THE HONOR ROLL

Records of operation exceeding 500,000 man-hours, or one year, if exposure exceeds 250,000 man-hours, without a disabling (lost-time) injury are invited.

Birdseye-Snider Div., General Foods Corp.

Albion, N. Y.—October 1, 1948, through January 1, 1950; 739,860 man-hours; continuing.

Marion, Ind.—October 1, 1947, through January 1, 1950; 773,253 man-hours; continuing.

Celanese Corp. of America

Plastics Div., Newark, N. J.—June 3, 1949, to January 9, 1950; 1,000,000 man-hours; continuing.

Celco Plant, Narrows, Va.—September 11 to December 31, 1949; 2,000,000 man-hours; continuing.

The Champion Paper and Fibre Co.

Canton, N. C., Div.—September 14, 1949, to January 9, 1950; 1,662,402 man-hours.

Covington Weaving Mill, Div. Wm. Klopman & Sons, Inc.

Covington, Va.—March 30, 1948, to January 10, 1950; 1,027,466 man-hours; continuing.

Department of the Army

Springfield, Mass., Armory—July-October 1949—2,208,388 man-hours.

Umatilla Ordnance Depot, Ordnance, Ore.—June 1948—October 1949; 1,715,463 man-hours.

Lordstown Ordnance Depot, Warren, Ohio—March 1948—October 1949; 1,477,396 man-hours.

Ravenna, Ohio, Arsenal—June-October 1949; 1,128,064 man-hours.

Gentlemen:

The five minute safety talk is a perfect example of badly needed material. Our foremen will greatly benefit from it.



Another Smash Hit

in an 18 year run!

The INDUSTRIAL SUPERVISOR proudly announces the 5 MINUTE SAFETY TALKS. The brand new monthly series that is receiving an enthusiastic reception by the 90,000 foremen who receive the SUPERVISOR. These 5 MINUTE TALKS are simple outlines of the fundamentals of safety and production and are another outstanding example of why the INDUSTRIAL SUPERVISOR is the most compact, educational little safety magazine.

Every month, selected materials meet your foreman training needs. Picture pages, Safety Limericks, Feature Articles, and "How to do it" pages build the habit of safety. Month after month repetition convinces them that safety and production go hand in hand.

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	1 to 9	10 to 99	100 to 999	1000 or more
Annual subscriptions, paid in advance, each.....	\$1.65	\$1.55	\$1.50	\$1.45
Annual subscriptions, billed monthly, each.....	.165	.15	.13	.125
Single issues, each.....	.165	.155	.15	.145

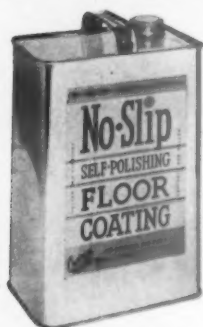
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NATIONAL SAFETY COUNCIL

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NO WAX...**

**OUTWEARS WAX
2 to 1**

At last—a resilient, long-wearing coating of good gloss and maximum slip resistance. NO-SLIP, a new but thoroughly tested floor coating, provides a safe, lustrous surface. It is easy to apply, can be maintained inexpensively. (Co-efficient of friction rating 0.90 on linoleum and asphalt tile... by Underwriters' Laboratories Re-examination Service.)

Write for free demonstration kit and literature.

TIME-SAVING SPECIALTIES

**706 New York Life Building, Dept. 6
MINNEAPOLIS, MINNESOTA**

Kansas Ordnance Plant, Parsons, Kans.—July 1948-October 1949; 786,316 man-hours.

Erie Ordnance Depot, Lacarne, Ohio—July-October 1949; 703,132 man-hours.

Sunflower Ordnance Works, Lawrence, Kans.—December 1948-October 1949; 651,734 man-hours.

Iowa Ordnance Plant, Burlington, Ia.—May-October 1949; 635-539 man-hours.

Aberdeen, Md., Proving Ground—September 1949; 525,168 man-hours.

Navajo Ordnance Depot, Flagstaff, Ariz.—June-October 1949; 509,658 man-hours.

The Firestone Tire & Rubber Co.
Pottstown, Pa., Tire Plant—April 1 to December 8, 1949; 3,440,274 man-hours.

Xylos Div., Akron, Ohio—March 25, 1949, to February 20, 1950; 1,175,000 man-hours; continuing.

Foley Manufacturing Co.
Minneapolis, Minn.—February 25, 1949, to February 25, 1950; 450,000 man-hours; continuing.

Imperial Glass Corp.
Bellaire, Ohio—May 17, 1949, to March 7, 1950; 819,490 man-hours; continuing.

Heintz Manufacturing Co.
Philadelphia—September 26, 1949, to January 15, 1950; 1,000,000 man-hours; continuing.

Johns-Manville Corp.
Asbestos, P. Q.—September 7, 1948, to December 31, 1949; 940,055 man-hours; continuing.

Lockheed Aircraft Corp.
Burbank, Calif.—November 26, 1949, to January 8, 1950; 16,000 employees; 3,512,127 man-hours.

Marathon Corp.
Menominee, Mich.—385 days; 857,160 man-hours.

The Mengel Co.
Fourth St. Plant, Louisville, Ky.—August 2, 1948, to February 1, 1950; 3,077,620 man-hours; continuing. This is a new record for the woodworking industry.

Philadelphia Naval Shipyard Naval Base
Philadelphia—October 14 to December 9, 1949; 6,960 employees; 2,005,972 man-hours. This is a new record for shipbuilding.

Sharp & Dohme, Inc.
West Point Plant—May 20, 1948, to November 30, 1949; 463,466 man-hours.

Swift & Co.
Kansas City, Mo.—2,090,152 man-

hours as of December 31, 1949; continuing.

U. S. Dept. of Agriculture, Forest Service
Texas National Forests, Lufkin, Tex.—December 8, 1948, to December 31, 1949; 340,000 man-hours.

Westinghouse Electric Corp.
Tool and Special Equipment Dept., Feeder Div., East Pittsburgh, Pa.—425 employees; 2,600,000 man-hours as of January 1, 1950.

Obituary

ADAM H. LINTZ

ADAM H. LINTZ, widely known in safety circles, died January 22 at his home in Lakewood, Ohio. He was 61 years old. Surviving



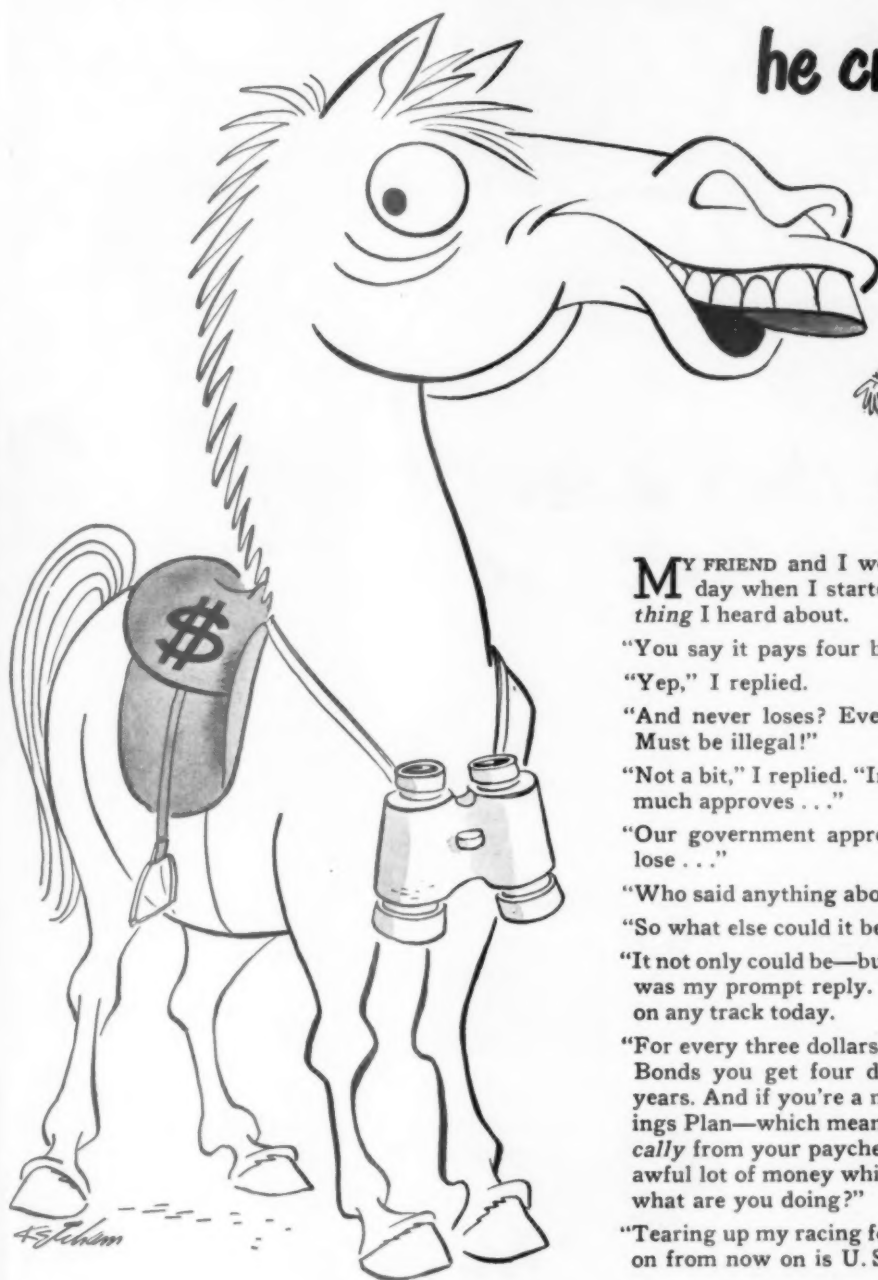
are his widow, Sylvia Jane, and a sister, Mrs. Mary L. Schmitt.

During World War I Mr. Lintz was safety engineer at the Norfolk Navy Yard. After the war he was the first manager of the Cleveland Safety Council, serving from 1919 to 1926. For several years he was in the real estate business and served as city councilman in Lakewood.

In 1934 he was appointed one of three Civil Works Administration safety directors for Ohio. In 1935 he was called to Washington as assistant national director of safety for the Works Progress Administration. He joined the field organization staff of the National Safety Council in 1936.

From 1944 until his retirement in 1948 he was regional director

"There's no such animal," he cried!



MY FRIEND and I were picking the ponies one day when I started telling him about a *sure thing* I heard about.

"You say it pays four bucks for three?" he asked.

"Yep," I replied.

"And never loses? Ever? It *automatically* wins? Must be illegal!"

"Not a bit," I replied. "In fact, the government very much approves..."

"Our government approves of a horse who can't lose..."

"Who said anything about a horse?" I asked.

"So what else could it be but a horse...?"

"It not only could be—but is—U. S. Savings Bonds," was my prompt reply. "The surest thing running on any track today."

"For every three dollars you invest in U.S. Savings Bonds you get four dollars back after only ten years. And if you're a member of the Payroll Savings Plan—which means you buy bonds *automatically* from your paycheck—that can amount to an awful lot of money while you're not looking. Hey, what are you doing?"

"Tearing up my racing form! The horse I'm betting on from now on is U. S. Savings Bonds."

Automatic saving is sure saving—U.S. Savings Bonds



Contributed by this magazine in co-operation with the Magazine Publishers of America as a public service.

for want of a Safety Shoe...



For want of protection, a toe was lost.
 For want of a toe, man-hours were lost.
 For want of man-hours, production was lost.
 For want of production, good will was lost.
 For want of good will, profits were lost.
 And all for the want of a safety shoe.

Free Posters to help you cut
 cost of foot accidents! ALSO catalog of
 Safety First Shoes for your industry.
 Write today!



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PIONEER MANUFACTURERS OF SAFETY SHOES

West Coast Branch: Pacific Bldg., 16th St., Oakland, Calif.

of the Division of Safety and Hygiene, Industrial Commission of Ohio, in the Cleveland area.

JAMES SCULLY

JAMES SCULLY, assistant to the manager, Membership Department, National Safety Council, died March 17 after a prolonged illness.

Mr. Scully will be widely remembered as the Council's repre-



sentative at service exhibits in Washington, Pittsburgh, Cleveland, Chicago, Seattle, Portland, San Francisco, Los Angeles and other cities.

He joined the staff of the Council in 1943 as an administrative assistant, became director of the service bureau of the Membership Department, and was appointed to his latest position in 1949. He had been with A. G. Spalding and Co. for 16 years before joining the Council staff.

Mr. Scully was a native Chicagoan. He was 42 years of age at his death. He is survived by his wife and two children.

P. L. G. HASSKARL

PAUL L. G. HASSKARL, safety engineer for Pennsylvania Power & Light Company's system, died February 22. Employed by PP&L since April 13, 1926, Mr. Hasskarl previously was plant wire chief for Bell Telephone Company of Pennsylvania.

Widely known for his safety work with the utility firm, he was at one time general chairman of the National Safety Council's public utilities section. At the time of his death he was a member of the American Society of Safety Engi-

neers, chairman of the accident prevention committee of the American Gas Association and a member of similar committees for Edison Electric Institute and the



Pennsylvania Electric Association. Active also in his home-town area, he was twice president of the Lehigh Valley Safety Council and a member of the city's traffic commission.

Personals

(From page 46)

Society of Safety Engineers, and past chairman of the old Taxicab and Delivery Section, now the Commercial Vehicle Section, of the National Safety Council.

JOHN A. NEALE has been appointed chief engineer for the National Board of Fire Underwriters, New York, succeeding Calvin G. Lauber, acting chief engineer, who died suddenly January 4.

Mr. Neale, who assumed his new duties March 1, has been vice-president and chief engineer for Underwriters Laboratories, Inc., Chicago.

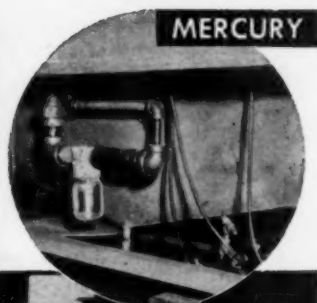
Appointment of ROBERT S. KRUEGER as Director of Industrial Service has been announced by the National Society for the Prevention of Blindness, New York.

Since 1945, Mr. Krueger has been connected with the American Optical Company, working on industrial vision control programs. Prior to that, as head of the Safety Department of Pratt and Whitney Aircraft Corporation, he established in 1943 a safety program for the company's seven plants, with a total of more than 30,000 employees.

Mr. Krueger has also been con-



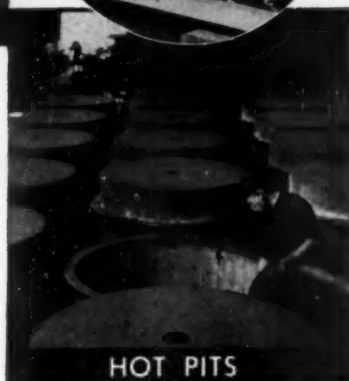
CARBON MONOXIDE



MERCURY

HANDLING

*fumes,
liquids and
hot materials*



HOT PITS

WITH SPENCER VACUUM

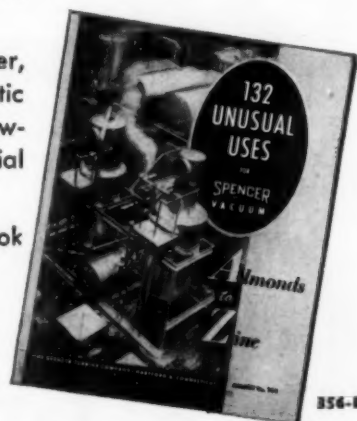
Spencer Vacuum is not new to industry, but more than 100 unusual applications in industry have been used for the first time during the past few years.

This impetus came with the surge of war production, requiring that everything be done well and quickly, and that the heretofore impossible be done immediately.

No man can work in a hot pit, pick up globules of mercury with a spoon, or chase carbon monoxide gas out of a garage with a fan. Yet Spencer Vacuum does all three jobs almost automatically.

Spencer provides the vacuum power, the special hose and tools, automatic dumping mechanisms, and the know-how based on hundreds of special applications.

All you have to do is send for the book of "132 Unusual Uses" and use your ingenuity and imagination to discover a highly valuable application for your plant.



356-B

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SPENCER
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Taylor Chain manufactures many grades and sizes of chain each for a definite pulling, binding or lifting job. Only false economy—needless chain wear and costly accidents—can result when incorrect chain is used for a variety of jobs. See your mill supply distributor or write the factory for help in selecting the proper chain for your needs.

PROOF COIL

Manufactured from C-1008 steel having an approximate tensile strength of 5,000 P. S. I. Formed and butt welded into short links.

BBB COIL

Manufactured from the same analysis steel as Proof Coil Chain. Formed and butt welded into shorter links for flexibility and greater distribution of load among more links.

HI-TEST

Manufactured from C-1017 steel having an approximate tensile strength of 85,000 P. S. I. Formed, butt welded and heat-treated. It is tougher and has greater resistance to wear than BBB or Proof Coil Chain.

STEEL LOADING

Manufactured from the same analysis steel as Hi-Test Chain. After welding it is heat-treated to produce a chain which will stretch at lower loads than Hi-Test Chain. High quality chain with a visible factor of safety.

S. G. TAYLOR CHAIN CO.
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Send for free copy of new booklet containing complete data on TM Alloy Steel Chain.



TAYLOR MADE
A GREAT NAME IN
Chain SINCE 1873

nected with the Continental Casualty Assurance Company and with Employers Mutuals of Wisconsin. He is a graduate of the University of Illinois, College of Engineering.

TV Safety Story

(From page 27)

thing most people always take for granted and yet very frequently can be the cause of a great deal of difficulty. I have a little chart giving some idea of the relative importance of the oxygen content of the air we breathe. Normal air, the type you and I are breathing, contains approximately 21 per cent by volume of this very vital element, oxygen. 16 per cent is considered to be the absolute minimum at which man can live for any appreciable time without suffering ill effects. When less than 16 per cent, for instance down to 7 per cent, is reached, death is just a matter of relatively few minutes.

A.—Well, I presume you have ways of testing the atmosphere then to make sure that it is safe for people to breathe.

F.—I brought along a rather interesting and yet extremely simple device of this nature. It is called an oxygen deficiency indicator.

A.—A deficiency indicator? It looks like a lamp to me.

F.—Well, as a matter of fact, it is. It is a gasoline lamp burning as you see here quite quietly and complacently, due to the air from the studio getting down into the inside of the lamp. However, when we allow air to escape into this indicator from the three balloons that we have on hand, you will see how the instrument works. Now, if you observe very carefully the characteristics of this flame,

SAFETY ENGINEER

Detroit automobile manufacturer is in immediate need of men experienced in Industrial Safety. These men must not only be experienced inspectors, but must be able to study blueprints for new equipment and machinery to determine if safety precautions are included. Engineering degree preferred. These are permanent positions. In reply, give full particulars of work experience, education, and salary desired. Reply to Box No. 405 NATIONAL SAFETY NEWS.

I will allow air to pass from the three balloons, introducing first ordinary air with 21 per cent oxygen from the first balloon. As you will see, there is little or no change in the flame.

A.—No change at all as near as I can see.

F.—That's correct. We will now pass air from the second balloon into the chamber. It contains about 17 per cent oxygen. It's barely enough for the flame to burn and yet not burn very well.

A.—It is quite a bit fainter and very weak. The combustion rate is being effected.

F.—That's correct. When we go below that percentage, however, we find extinction of the light when we let the air with the 7 per cent oxygen into the lamp. Your life would go out too, if you were in that kind of an atmosphere. The flame is dying quickly. Lower and lower it is going. There it goes. It's out.

A.—Well, that's a very graphic demonstration and I suppose the same thing would happen to us in short order if we were within the atmosphere which the last balloon represents.

F.—That's right.

A.—It's a wonderful demonstration. Well, we have been talking about safety in research laboratories. I want to put a twist on that statement and ask you about doing research in the business of safety. As a safety engineer, I presume you're concerned with that, primarily, aren't you?

F.—We have many phases of safety, such as industrial hygiene and fire protection, in which we are interested. I brought along tonight, a typical device used for studying explosions.

A.—Explosions?

F.—Yes, explosions. It sounds as though anyone who would study explosions would not live to report his results.

A.—I was going to say, how do you get reports on it?

F.—But as a matter of fact with a small device of the type we have here it is possible to reproduce explosions on a small scale, and from them learn a great deal that is helpful in preventing large explosions. I have here a small



THE STORY BEHIND INDUSTRIAL FLOOR SAFETY THAT COMPLETES THE PICTURE!

Production crews work on plant floors that are carefully kept safe and slip-resistant—

—While highly-paid engineers and executives walk on administrative floors that are slick, slippery hazards!

Yes, old-fashioned methods of waxing expensive administrative floors still persist—methods responsible for up to 95 out of 100 slip and fall accidents! For old-style waxing was designed to protect floors—not people!

Many leading firms now have underfoot safety for all floors with the Legge System of Safety Floor Maintenance. Legge was first with floor polishing that is slip-resistant, first with *safety engineering* of floor maintenance, first to be listed by Underwriters' Laboratories.

Casualty insurance companies widely recommend the Legge System.

Legge floor safety products give you polished safety on administrative flooring, and specific slip-preventatives for common plant floor safety problems. And Legge Safety Engineers teach your crews how to keep floors safe, how to prevent slippery walkways—a service that's *free* with your use of Legge products.

Learn now how the Legge System can give you equal slip-resistant protection for all your floors. For informative literature, clip the coupon to your letterhead and mail. Walter G. Legge Co., Inc., New York 17, N. Y. Branch offices in principal cities. In Canada, J. W. Turner Co., Toronto.

Walter G. Legge Co. Inc.
101 Park Ave., New York 17, N.Y.

Please send me a free, no-obligation copy of your Mr. Higby book.

Signed _____

Title _____

Types of flooring _____

Area _____ sq. ft.

LEGGE SYSTEM
of Safety Floor
Maintenance

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Add a BIG ***SAFETY*** FACTOR to your hoist

A Laughlin Safety Hook will boost the "safety efficiency" of your hoist many times . . . protecting workers against injury and equipment against damage from accidentally slipping loads.

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is equipped with a*

LAUGHLIN SAFETY HOOK

Specify "Laughlin Safety Hooks" when ordering new hoists from your distributor. They pay for themselves many times over in accidents avoided.

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present Hoist Hooks to*

LAUGHLIN SAFETY HOOKS

Order from your distributor according to the size now on your hoisting equipment . . . or state the capacity of your hoist and he will furnish the correct Laughlin Safety Hook to fit your needs.



**LAUGHLIN
SAFETY HOOK**

The Latch Locks the Load

Drop-forged steel,
heat-treated . . .
stainless steel spring
with pressed steel
latch. Cast bronze
latch on larger
sizes. Available for
 $\frac{1}{2}$ to 15 ton safe
working loads.

Send for Laughlin's famous data book of fittings — ask for Catalog #145. THE THOMAS LAUGHLIN COMPANY, DEPT. 9, PORTLAND 6, MAINE.

*There is a
LAUGHLIN
SAFETY HOOK
for every
HOISTING or
MATERIALS-
HANDLING
JOB*



3310
 $\frac{1}{2}$ to 15 tons



3220
 $\frac{1}{2}$ to 15 tons



3316
 $\frac{1}{2}$ and 1 ton



3315
750 pounds

bottle of as common material as you find in any kitchen—ordinary white flour.

A.—You're going to explode this stuff?

F.—We will take a small quantity of the flour and put it in the inner chamber of our testing device. We have here probably 5 grams.

A.—It looks like a chimney.

F.—It is a chimney, except instead of being made of bricks or glass, it is made of lucite, and hence has considerable more resistance to an explosion than glass. The top of our chamber is completed by putting a piece of paper over the top and tightly clamping it in place. Now let's see if we can make ordinary flour explode. (Explosion.)

A.—All right. I see you did, and very impressively, too.

F.—Now this flour simply exploded because it was a dust and was ignited. The finely divided flour particles became so surrounded by the air that in the presence of the nichrome electric filament here they burned with such rapidity that we had an explosion which, of course, blew the paper top off our chamber.

A.—This should be a warning to every housewife listening to us tonight, I think, Mr. Fawcett. Don't shake a lot of flour around your kitchen if your stove is burning.

F.—That's a very wise precaution.

A.—It's certainly a convincing demonstration. I'm ever so grateful to you for coming down to be with us tonight to tell us about laboratory safety. Thank you, Mr. Fawcett.

A Safety Man's Philosophy

(From page 35)

sequences and warned him that he would have to let him go if he persisted in doing such stunts. The second administered a mild and not very emphatic warning.

In the first case, the man repeated his unsafe acts and was fired. In the second case the worker was permitted to continue his unsafe ways with ineffective

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**SAVE
MONEY**

SAVE
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Ceiling Space
Storage Space
Storage Time
Receiving Time
Production Time
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**CUT
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SPACEMASTER Electric Trucks
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FOR
BULLETIN
NO. 25



The "MASTER" Line,
MATERIALS HANDLING EQUIPMENT

"Engineered to Save You Money!"



Smart fleet of "SPACEMASTER" Electric Fork Trucks handle many kinds of materials in this public utility warehouse.

"SPACEMASTER" Electrics operate quicker, in less space. "SPACEMASTER" Electrics have low cost maintenance, less down time. "Standrive" feature lets operator pivot and turn and thus safely trail load. No need to turn truck and load around as his vision is unobstructed. Better visibility also permits accurate placement of forks and spotting of loads . . . "Deadman" brake; greater stability; plus free, quick access from either side give greater SAFETY . . . Send For Bulletin 25 Today!

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PRODUCTS INC.

163 WALNUT STREET, WATERTOWN 72, MASS.

Midwest Plant: Crawfordsville, Ind.

REPRESENTATIVES IN PRINCIPAL CITIES

warnings. Accidental death was his fate.

Which foreman was his brother's keeper?

To spend a lifetime in safety work a man must have a strong inner conviction and a deep sense of satisfaction. Men differ externally, but true safety men are alike in this deep inner conviction.

Joy in Service

MR. MOORE:

Mr. Dearborn's editorial compels one in our profession to search his heart and soul to find a satisfactory answer to the question, "Why have I chosen safety engineering as a life work?"

I am inclined to believe that the main reason is that it satisfies that deep inner urge to do something tangible for the benefit of those closest to me. In no previous job have I felt the contentment and joy that has been mine since entering this work in 1942.

Influences exerted by heredity, environment and early training may have been responsible to a degree. Many of my ancestors were ministers of the gospel, and my mother was anxious that I follow the tradition. After all, safety in its broadest sense includes the security of both body and soul.

Another reason for the personal satisfaction derived from the work may be the challenge it offers. Again, there is a similarity between the ministry and safety engineering in that we must deal with the individual and effect a change of attitude before achieving any measure of success.

Still another reason is the fact that this profession offers an opportunity to utilize every bit of knowledge and experience previously acquired. To draw again from personal experience, I have spent at least two years in each of the following jobs: cost accounting, office management, factory superintendent, construction, equipment salesman, and U. S. Army. Courses by correspondence and night school have been taken in such subjects as cost and general accounting, salesmanship, psychology, and business administration. At various times in safety work, these cumulative experiences have proved helpful.

And these are by no means all. The field is relatively new in the

"IT'S A SNAP" with BUHRKE'S new SCOTCH SNAP



A revolutionary multiple purpose snap for hoisting material to the pole top. Makes possible an endless hand line, eliminating the tying of knots. Designed so it can not catch on service wires while raising or lowering. Tested to 2500 lbs. between eyes and 1000 lbs. on each hook and upper eye. Write for details!

R. H. Buhrke Co.
4701 W. Grand Ave.
Chicago 39, Ill.

sense that it has not long been a recognized profession. Opportunities to learn are, therefore, practically unlimited. Not a day passes without some new knowledge being gained. It is stimulating, even though there are discouragements at times.

Certainly, existing pay scales cannot be cited as a compelling reason for choosing this vocation. Again we have a favorable comparison with the ministry.

Summing it all up, the full realization that our sons and daughters, and their sons and daughters must be given better safety education so that they may find the happiness that is possible only with sound bodies and minds.

Our task is tremendous and unending. With accidents becoming a greater cause of death and misery, surpassing many diseases as a cause of death and impairment, the need for our service far exceeds existing supply and capabilities.

Still Learning

MR. RICKETTS:

Unexpectedly appointed a division safety supervisor in 1929, on my first day I received a report of a fatality. It made a profound impression on me. During the succeeding three-year term accidents were numerous though considerable improvement occurred. My own philosophy of that time would be difficult to express.

As area safety supervisor since 1941, results have not been spectacular. There have been many successes and many discouragements, but the trend in accident rates has been steadily downward, and 1950 promises a new low.

I have learned a great deal, and am still learning.

My conviction, strongly held, is that the safety job is one of knowing and understanding people. Not only the craftsmen but also their supervisors—yes, and top superintendents and managers.

Safety means convincing all these people that preventing accidents is common sense, both from the standpoint of individual welfare and also from the angle of collective efficiency. Once they are convinced on these two counts, the rest will come.

I find satisfaction in reviewing

the past accident frequency records and comparing them with those of today, contemplating the men now alive who might be dead, those strong and well who might have been disabled, the homes and children's futures now secure that might have been destroyed.

Prevention is my job. I shall never know the accidents I prevent, but even when the going is tough there is great comfort in considering what might have been.

I get considerable help from the National Safety Council, and I thank you for it.

The Winners

(From page 23)

Southern Dairies, Inc., Richmond, Va.
Southern Dairies, Inc., Chattanooga, Tenn.
Southern Dairies, Inc., Christiansburg, Va.
Kraft Foods Co., Stockton, Ill.
Southern Dairies, Inc., Greensboro, N. C.
Kraft Foods Co., Los Angeles, Calif.
Kraft Foods Co., Albany, Minn.
General Foods Corp., Diamond Crystal-Colonial Salt Div., St. Clair, Mich.
General Foods Corp., Birds Eye—Snider Div., Albion, N. Y.
General Foods Corp., Diamond Crystal-Colonial Salt Div., Akron, Ohio
Henry H. Shufeldt & Co., Inc., Peoria, Ill.
General Foods Corp., Birds Eye—Snider Div., Rome, N. Y.
H. J. Heinz Co., Saginaw Dist.
General Cigar Co., Inc., Nanticoke, Pa.
General Cigar Co., Inc., Huntington, W. Va.
General Cigar Co., Inc., Kingston, Pa.
General Cigar Co., Inc., Evansville, Ind.
General Cigar Co., Inc., Mt. Carmel, Ill.
General Cigar Co., Inc., Philipsburg, Pa.
General Cigar Co., Inc., Valley-Kingston, Pa.
General Cigar Co., Inc., Chester-Lancaster, Pa.
Bayuk Cigars, Inc., Lancaster Leaf Plant
National Distillers Products Corp., Louisville, Div.
Joseph E. Seagram & Sons, Inc., Hunter-Wilson Distilling Co., Bristol, Pa.
Joseph E. Seagram & Sons, Inc., Old Farmer's Distillery, Athertonville, Ky.
Green River Distilling Co., Stamping Ground, Ky.
The Geo. T. Stagg Co., Lebanon, Ky.
Brown-Forman Distillers Corp., Early Times Div., Shively, Ky.
Brown-Forman Distillers Corp., Labrot & Graham Div., Versailles, Ky.

The Geo. T. Stagg Co., Limestone Springs, Ky.
 Ewing-Von Allmen Dairy Co., Louisville, Ky.
 The Borden Co., Kennedy Mansfield Div.
 Southern Dairies, Inc., Asheville, N. C.
 Grand Rapids Creamery, Grand Rapids, Mich.
 Sunshine Farms, Inc.
 The Moore Dairy, Lancaster, Pa.
 Borden's Dairy, Div. of the Borden Co., St. Petersburg, Fla.
 Borden's Dairy & Ice Cream Co., Newark, Ohio
 Borden's Dairy & Ice Cream Co., Portsmouth, Ohio
 Borden's Dairy, Div. of the Borden Co., Daytona Beach, Fla.
 Borden's Dairy & Ice Cream Co., Middletown, Ohio
 Borden's Dairy & Ice Cream Co., New Philadelphia, Ohio

Marine Section Safety Contest

Union Barge Line Corp., Pittsburgh, Pa.
 Dept. of the Army, Corps of Engineers, Missouri River Div.
 The Chesapeake and Ohio Railway Co., Newport News, Va.
 Atlantic Coast Line Railroad Co., Port Tampa, Fla.
 The Chesapeake and Ohio Railway Co., Newport News, Va.
 Standard Oil Co. (Ind.), Marine Dept. San Francisco Naval Shipyard, San Francisco, Calif.
 Lago Oil & Transport Co., Ltd., Aruba, N. W. I.
 Dept. of the Army, Corps of Engineers, Missouri River Div.
 Wilmington Plant, Dravo Corp. Corps of Engineers, Southwestern Div.
 The New York, New Haven & Hartford Railroad Co., Harlem River Marine Shop.
 Lago Oil & Transport Co., Ltd., Aruba, N. W. I.

Meat Packing Industry Safety Contest

Swift & Co., Kansas City, Kan.
 Wilson & Co., Inc., Oklahoma City, Okla.
 Corkran, Hill & Co., Inc., Baltimore, Md.
 Arnold Bros., Inc., Perry, Ia.
 Swift & Co., Hallstead, Pa.
 Peter Eckrich & Sons, Inc., Fort Wayne, Ind.

Paper Industry Safety Contest

Brown Corp., La Tuque, Can.
 National Container Corp., Kraft Pulp & Board Div., Jacksonville, Fla.

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Then give HERC-ALLOY the toughest chain job in your plant. Our asking for this test reflects the confidence given us by HERC-ALLOY service records from industry's leading plants.

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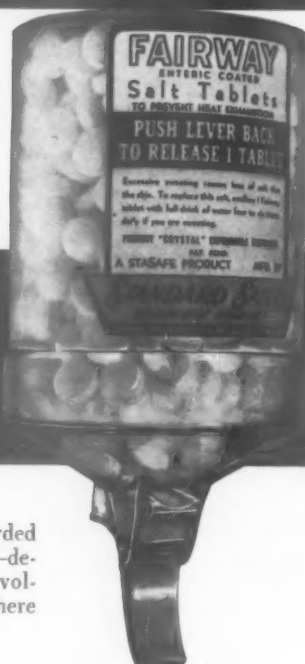
SALES OFFICES: NEW YORK • CHICAGO • CLEVELAND • SAN FRANCISCO

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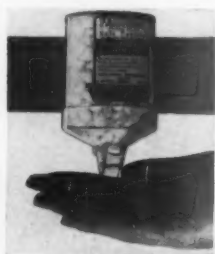
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- ★ EXPENDABLE*
- ★ TRANSPARENT
- ★ LOW COST

*This new economical unit is discarded when the salt supply is exhausted—designed to fit the demands of small volume users and in plant locations where limited supplies are needed.



The all-clear plastic "Crystal" comes filled with 500 Enteric Coated Salt Tablets—tablets that prevent the premature salt dissolution that may cause distress to some workers. Each unit is factory sealed for utmost protection of the salt supply.



Easy to operate—just one finger on the trigger—push, click—and a tablet drops into your hand—release and the trigger cocks itself—ready for the next user. A simplified wall mounting is included with each unit.

For further information on the "Crystal" and the complete line of StaSafe and Fairway permanent type dispensers—

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STANDARD SAFETY

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Flashing color, changeable letter display for your important safety messages. The most effective safety bulletin made.

Write for special circular.

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West Virginia Pulp and Paper Co., Williamsburg, Pa.
Marathon Corp., Menominee Plant
National Vulcanized Fibre Corp., Yorklyn, Del.
Price Brothers & Co., Ltd., Jonquiere Mill
Congoleum-Nairn, Inc., Cedarhurst, Md.
National Vulcanized Fibre Co., Newark, Del.
Harriman Div., The Mead Corp., Harriman, Tenn.
Container Corp. of America, Carthage, Ind.
Wheelwright Div., The Mead Corp., Leominster, Mass.
United States Gypsum Co., Oakmont, Pa.
Marathon Corp., Ashland Plant
Armstrong Cork Co., Pensacola Plant
Strathmore Paper Co., No. 1 Mill, Woronoco
Ward Paper Co., Merrill, Wis.
Hollingsworth & Whitney Co., Abenakis Mill, Madison, Me.
National Gypsum Co., Newburgh Plant
Riegel Paper Corp., Riegelsville Mill
Spaulding Fibre Co., Inc., Hayes Plant
Lily-Tulip Cup Corp., College Point Plant
National Container Corp., Southern Container Div., Jacksonville, Fla.
Marinette Paper Co., South Glens Falls Plant
Fibreboard Products, Inc., South Gate, Calif.
Container Corp. of America, Baltimore, Md.
Bird & Son, Inc., Shreveport Roofing Plant
Kimberly-Clark Corp., Atlas Mill, Appleton, Wis.
South West Box Co., Sand Springs, Okla.
Certain-teed Products Corp., Kansas City, Mo.
Pillsbury Mills, Inc., Wellsburg, W. Va.
Thilmany Pulp and Paper Co., Thilmany Bag Mill Unit, Kaukauna, Wis.
Certain-teed Products Corp., Buffalo, N. Y.
The Flintkote Co., Hollywood, Calif.
Bay West Paper Co., Green Bay, Wis.
Lloyd A. Fry Roofing Co., San Leandro, Calif.

Petroleum Section Safety Contest

Lago Oil & Transport Co., Ltd., Aruba, N. W. I.
The Ohio Oil Co., Findlay, Ohio
Socony-Vacuum Oil Co., Inc., Paulsboro Refinery
Phillips Petroleum Co., Plains Plant
Phillips Oil Co., Okmulgee Refinery
Continental Oil Co., Ponca City, Okla.
The Ohio Oil Co., Findlay, Ohio

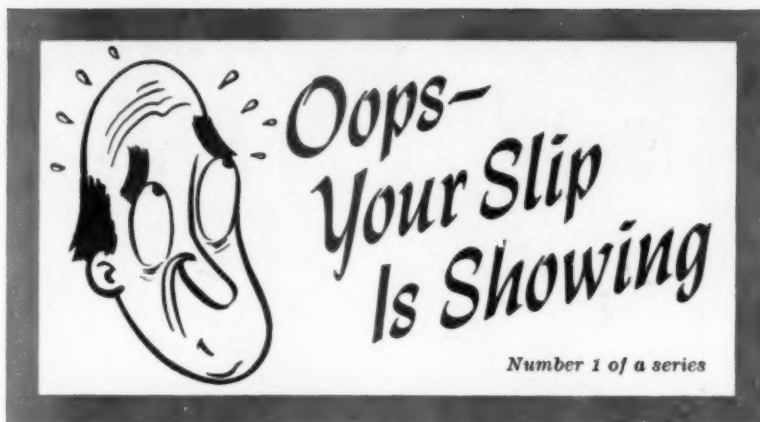
Ashland Oil & Refining Co., Ashland, Ky.
 Stanolind Oil and Gas Co., Tulsa, Okla.
 Continental Oil Co., Ponca City, Okla.
 Lario Oil & Gas Co., Wichita, Kan.
 Shell Pipe Line Corp., Houston, Tex.
 Arkansas Pipe Line Corp., Shreveport, La.
 General Petroleum Corp., Los Angeles, Calif.
 The Carter Oil Co., Tulsa, Okla.

Public Utilities Section Safety Contest

Consolidated Gas, Electric Light and Power Co., Baltimore, Md.
 Lake Superior District Power Co., Michigan Gas and Electric Co., Ashland, Wis.
 Athol Gas and Electric Co., Athol, Mass.
 The East Ohio Gas Co., Cleveland, O.
 Pittsburgh & West Virginia Gas Co., Pittsburgh, Pa.
 Water, Gas & Sewage Disposal Dept., City of Duluth, Minn.
 Northampton Gas Light Co., Northampton, Mass.
 Metropolitan Edison Co., Reading, Pa.
 New Jersey Power & Light Co., Dover, N. J.
 Quincy Electric Light & Power Co., Quincy, Mass.
 Gardner Electric Light Co., Gardner, Mass.
 Central Massachusetts Electric Co., Palmer, Mass.
 Weymouth Light and Power Co., East Weymouth, Mass.
 Attleboro Steam and Electric Co., Attleboro, Mass.
 Gloucester Electric Co., Gloucester, Mass.
 Citizens Electric Corp.
 Granite State Electric Co., Lebanon, N. H.
 Farmers' Electric Cooperative, Inc., Chillicothe, Mo.

Rubber Section Safety Contest

United States Rubber Co., Ball Band Plant, Mishawaka, Ind.
 The Goodyear Tire and Rubber Co., Cumberland, Md.
 The B. F. Goodrich Co., Miami Plant
 United States Rubber Co., Woonsocket Plant
 The General Tire and Rubber Co., Waco Plant, Waco, Tex.
 Goodyear Synthetic Rubber Corp., Houston, Tex.
 U. S. Rubber Reclaiming Co., Inc., Buffalo, N. Y.
 Naugatuck Synthetic Rubber Plant, Naugatuck, Conn. (Operated by United States Rubber Company, as Agent for Reconstruction Finance Corporation, Office of Rubber Reserve.)



Since the beginning of tongue-flapping itself, it seems that even those who were famous for their elocution have slipped a bit at times and uttered many an unusual tongue-twister. Radio announcers are especially fearful of this phobia. One commentator reported on "the Battle of the Bulgarian Belch." Another swore by the gas he sold "at the sign of the flying red hearse." Still another announced: "I'm here to introduce Buppert's Rear!" Our favorite occurred on WWJ when the announcer mooned the merits of "Hand's Hind Cream!"



* * *



Radio announcers are not the only ones who distort the King's English. Reverend W. A. Spooner (after whom Spoonerism was named) was probably the most notorious tongue-twister of them all! At a luncheon, pointing to some pink jelly, he asked his neighbor if he liked this "stink puff." On another occasion he agreed that it was "kistomary to cuss the bride." Addressing his congregation one day, the Rev. Spooner wished to emphasize the "half-formed wish in many a breast," but blurted out with great enthusiasm: "Ah, brethren! Are you never conscious of a half-warmed fish within the breast?"

* * *

Apparently, tongue-twisting knows no bounds. Even royalty and men of high rank have fallen victim to lip-slips. A very prominent and pompous old poke meaning to announce, "Gentlemen, the King," purred, "Kinglemen, the Gent." One announcer paid respectful tribute to "our great President, Hoovert Heever," while another referred to Queen Victoria as "the queer old dean!" Several million funny bones vibrated violently with the announcement, "You will know that the King and Queen have arrived when you hear the 21-sun galoot."



* * *



But the one that tops them all occurred at the end of a program in the Famous Romance Series. The Wedding March throbbed and faded, and the announcer spoke through happy tears, "So ends another virgin."

* * *

Incidentally, if your slips are showing . . . on your accident reports . . . may we suggest that you phone, write or wire The Diversey Corporation at once! Our Maintenance Department has for you two sensational anti-slip products! Quik-Sil and Aqua-Lic, oil, grease and water absorbents, give you safety-assured, performance-proved, low-cost protection against slippery floors . . . give you easier-to-clean, safer floors, at lower cost, always!



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THE DIVERSEY CORPORATION • Maintenance Department
 33 W. JACKSON BOULEVARD • CHICAGO 4, ILLINOIS



Just 90 Seconds

FOR CLEAN, DRY, SLIP-SAFE FLOORS

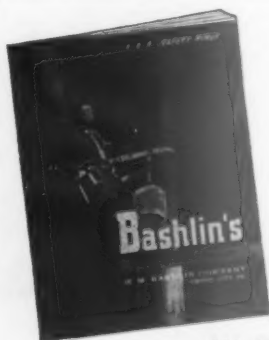
This two-man team working with HILD Equipment gets oily, slippery floors really clean . . . and leaves the floor dry and slip-safe! When floors are scrubbed during working hours, machine operators need be asked to step aside for only 90 seconds or less . . . so speedy is HILD System Shower-feed Scrubbing and Vacuum Drying. HILD Equipment easily

goes under and around machines . . . the danger spots where slippery oil and grease are thickest.

The same HILD Equipment performs many other plant clean-up jobs. With the Power-Scraper Attachment the HILD Floor Machine "dry-scrubs" rough, bumpy, grease-caked floors. Other attachments to wax, polish, buff, sand, grind or steel-wool floors of all kinds. The HILD Portable Vacuum "sweeps" floors with air," dusts overhead pipes, cleans bins, walls, elevator shafts, etc. Get complete information!

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Chicago 6, Ill.

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FREE
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Write Today for Your Copy

Bashlin's new bulletin giving full details on Linemen's Safety Equipment is ready for you . . . a complete line from which to choose, and every one a champion. Write today!

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United States Rubber Co., Research and Development Dept.

The B. F. Goodrich Co., Reclaim Plant, Akron, Ohio

World Bestos Div., Firestone Tire & Rubber Co., New Castle, Ind.

University of Akron Government Laboratories, Akron, Ohio

Firestone Tire & Rubber Co. of California, Xylos Plant, Los Angeles, Calif.

The Firestone Tire & Rubber Co., Research Laboratory

The B. F. Goodrich Co., Du Bois Plant Canadian Lastex, Ltd., Montreal, Quebec

United States Rubber Co., Manchester Plant

Armstrong Cork Co., South Gate Plant, South Gate, Calif.

United States Rubber Co., Burlington, Footwear Plant

The Firestone Tire & Rubber Co., Akron Retread Shop

Fabric Fire Hose Co., Sandy Hook, Conn.

National Automotive Fibres, Inc., Trenton, N. J.

Textile Section Safety Contest

Tallassee Mills, Mt. Vernon Woodberry, Tallassee, Alabama

The Columbia Mills, Inc., Wilkes-Barre, Penn.

Forstmann Woolen Co., Finishing Mill, Passaic, N. J.

Avondale Mills, Catharine Mill, Sylacauga, Ala.

American Yarn & Processing Co., American Processing Plant, Mount Holly, N. C.

Transit Section Safety Contest

The Dixie Traction Co., Covington, Ky.

Pittsburgh Railways Co., Pittsburgh, Pa.

New Orleans Public Service Inc., New Orleans, La.

Merchant Marine Safety

(From page 19)

of view of loading and discharging, but also as to its proper stowage in the vessel so that it will arrive at the port of discharge in the same condition as it was loaded.

Safe boat handling and fire protection imply safe operation with sound equipment. Cadet-midshipmen are given instruction in the function, requirements, and oper-

ation of all ship safety equipment. Repeated drills are given in the operation of this equipment to ensure proper handling in time of stress and under adverse conditions. Practice is given in clearing away lifeboats, as well as handling lifeboats under oars and sail.

Similarly, theoretical studies are made of the nature of fire, followed by intensive drills in modern methods of fighting shipboard fires. This course includes two days of practical fire fighting at the Danger Control Training Center at the Philadelphia Naval Base prior to entering upon sea duty either as cadet midshipman or as an officer.

The third point of view, that of safety of ship's personnel, is treated with two purposes in mind—establishing permanent safety habits in the individual cadet midshipman, and ensuring that he performs his assigned duties during all laboratory classes and drills with maximum safety for himself and his shipmates.

It is from this point of view that the most complete integration of safety instruction is made. It includes all practical activities, with particular emphasis on deck seamanship, high-voltage electronics and electric equipment, lethal gases, open hatches, improperly rigged gangways, missing sections of rail, swinging cargo drafts, or mooring wire under tension. At this level, day-to-day shipboard safety is stressed wherever applicable.

Engineering Courses

The Department of Engineering has a particularly vital interest in adequate instruction in safety measures for cadet-midshipmen, and in the careful observance of safe practices in the operation of the Department's array of engineering equipment. Instruction includes both theory and practice.

In courses dealing with the theory of engineering, and in the explanations of shipboard duties given by instructors, safety practices are emphasized wherever indicated. At the outset, it may be explained that not all safety discussions for cadet-midshipmen engineering are covered by this de-

Tuffy

TRADE MARK

SLINGS

Entirely Unlike Any Other



Scores of wires, stranded into 9 parts, then machine woven into an interlaced wire fabric—that is the unique patented construction which gives Tuffy extraordinary flexibility and stamina.

Super TOUGH—On every kind of load, under all kinds of pulls and with every type of hitch, Tuffy Slings have proved their superiority and universal adaptability.

Super-FLEXIBLE—Tie Tuffy Slings into knots, kink them, flatten the eyes. Observe how many more times you can straighten Tuffy Slings out without material damage. Note too, that cutting any one of the 9 parts will not result in stranding the sling.

Tested Strength Twice Safe Working Load Limit



Each Tuffy sling is proof-tested to twice the safe working load indicated on its metal tag. Tuffy's interlaced construction makes possible eye splices averaging 95% of fabric strength.

9 Types-Factory Fitted or Unspliced on the Reel

Try any one of the 9 factory packaged types—for choker, basket or bridle hitches. Prove to your own satisfaction their money saving worth to you. Or, if you're rigged for splicing—Tuffy interlaced wire sling fabric is available on the reel.

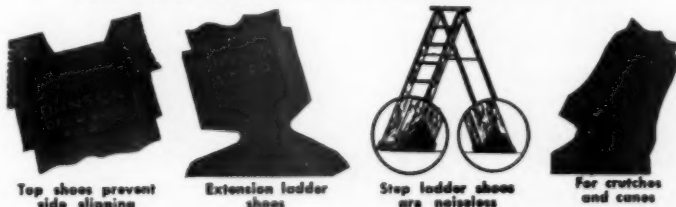


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MAINTENANCE MEN AND SAFETY ENGINEERS agree on the many merits of JOHNSON'S RUBBER LADDER SHOES FOR SAFETY



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JOHNSON LADDER SHOE CO., EAU CLAIRE., WIS.
SAVING LIFE IS OUR LIFE

Streamlined, Rivetless, Seamless sellstrom welding helmet



This No. 221 Welding Helmet offers maximum comfort and safety. It is extremely light weight, provides proper ventilation, absolutely excludes all light and assures complete facial protection.

The helmet is rounded; shaped without seams and made from tough, long-wearing fiber.

This helmet has our exclusive leather sweatband and patented head harness of non-absorbent Vulcoid. A convenient, adjustable friction hinge assures easy action when raising or lowering the helmet.

Equipped with our new two-piece Type A lens holder and spring-type chin rest.

Can be furnished with our new Sel-O-Matic headgear for easy adjustment to fit any size head. This is a feature which is very popular wherever it has been introduced to the actual workman.

We can also fit this helmet with our new Automatic Presto Shield. This is a very light weight device with extra eye shields. These are on top of the head under the hood when the helmet is down, but the moment the helmet is raised, the eye shields automatically come down to protect the eyes.

On your request we will gladly mail you literature which illustrates and describes these extra attachments.

Nearby jobber's name on request

sellstrom
MANUFACTURING COMPANY
Manufacturing more than 500
Eye and Face Safeguards
622 N. Aberdeen St., Chicago 22, Ill.

partment alone. Thus we have our young engineers taught the basic knowledge of seamanship. That naturally includes the use and handling of rope, staging, rigging of lifts, Naval and Merchant Marine fire-fighting practices.

And, by no means least, it includes the legal responsibilities of the ship's officer in enforcing safe working conditions. This includes the imparting of a firm concept of the officer's duty to his ship, his crew and his company. And if an accident should occur, it involves careful gathering and logging of full particulars in the case.

With respect to classroom instruction, each engineering course presents many opportunities to drive home the lessons of safety. Electrical safety measures are an example. When working on line equipment, as when behind switchboards, the cadet-midshipman is instructed to keep one hand always in a pocket, to have rubber mats or dry wooden gratings in place, to attach warning signs to switches of circuits being worked on, and similar precautions.

Steam engineering naturally affords many opportunities where cadet-midshipmen may observe safety measures. Of course, the whole object of instruction in engine operation is to teach men to run the equipment properly—which means safely. The hazards of low boiler water, of carry-over into turbines, and other ever-present threats in the engine room, as well as the remedies, are drilled into cadet-midshipmen.

Other phases of classroom instruction cover details on lighting off boilers, grounding or bonding tank vessels, entering long-closed tanks, operation of machine tools, grinders, and the like. For ready reference, all instructors have their own copies of the U. S. P. & I. Agency booklets on Accident Prevention on Tanker Vessels and Cargo Vessels by Captain Edward C. Holden, Jr. The same material has been reprinted by permission of the Agency for issue to all cadet-midshipmen.

With regard to the extensive practical shopwork, laboratory work and Academy boiler room routine, the safety measures normally include routine inspections,

annual inspection of boilers, and display of safety posters. Dangerous machines are painted according to recommendations of the ASA Safety Color Code sponsored by the National Safety Council. All hands are exhorted to follow simple safe practices, such as wearing goggles when grinding, leather gloves and aprons and screen face masks in the foundry; protective clothing for welding, and removing ties and rolling up sleeves before working at lathes. Enforcement is a never-ending problem.

The hazards that exist when fuel supplies are taken on, floorplates are lifted or heavy machinery lifts are rigged always receive careful attention. The floorplate area is safely roped off, the no-smoking ban is observed, the tank truck grounded, and so on.

From the medical officer's instruction of all cadet-midshipmen in first aid and preventive medicine, on through the daily checks of the fire watch, through the Academy-wide teaching of ship-board operation on deck and below, there is consistent emphasis on safety as a vital subject for young ships' officers and the entire complement of personnel attached to the U. S. Merchant Marine Academy.

Safety's Best Aid

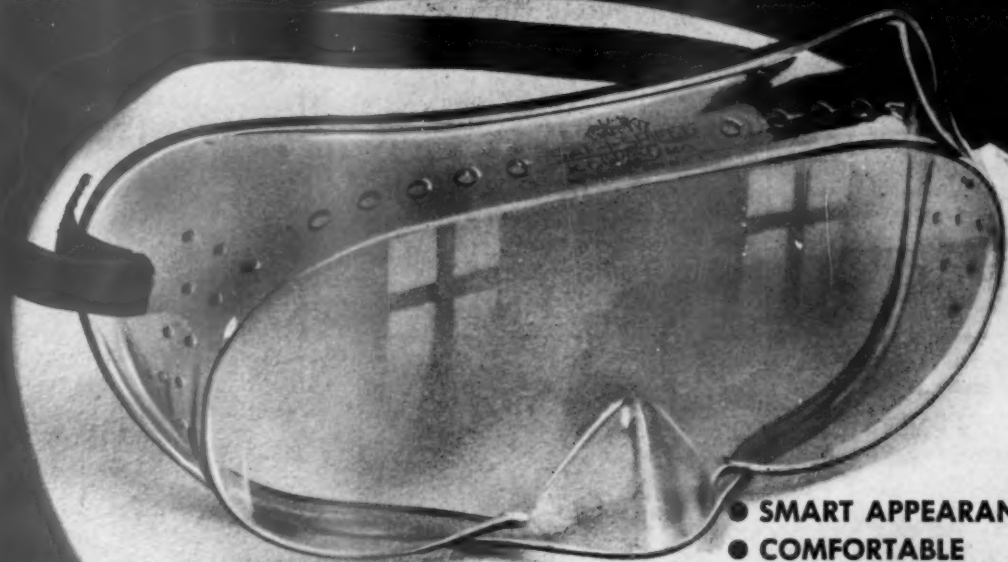
(From page 33)

until adequate ventilation was provided.

The same follow-up results when a skin irritation case is reported. Instead of stopping with treatment, the nurse furnishes a complete history not only of symptoms and progress of the case but first-hand information as to the patient's working environment. Such a report is invaluable to such persons as the company physician, chief chemist, State Board of Health or the industrial hygienist at the National Safety Council, all of whom are interested in getting to the source of skin troubles which might be of industrial origin.

Safety and health promotional material often originates in the First Aid Department and supervisors are especially appreciative when the nurse provides them with

SAF-I-SHIELD . . . the all-purpose safety goggle



UNITED STATES SAFETY SERVICE CO.
KANSAS CITY 6, MO. • BRANCHES IN PRINCIPAL INDUSTRIAL CITIES

- SMART APPEARANCE
- COMFORTABLE
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- STRONG . . . RUGGED
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SAFETY FLOOR FINISH

Keeps Floors Safe And New-Looking

EVERYTHING FOR INDUSTRIAL HEALTH AND SAFETY

You can depend upon Cen-Sol Products for every maintenance problem — cleaning, insect or bacteria control, floor upkeep, health and safety.

Write Cen-Sol technicians without obligation, about any specific health hazard or unusual condition in your plant. Many years of experience and over a hundred industrial housekeeping products are available to solve your every maintenance need.

Helpful Maintenance
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Tested and approved
by Underwriters Laboratories

Skidproof gives any type of floor — wood, linoleum, rubber, asphalt, tile or terrazzo — a hard, durable slip-proof surface that protects against the toughest kind of wear. It's easy to apply, easy to clean. It's quick-drying, odorless, economical — one gallon covers 2000 square feet!

Skidproof overcomes the slipping hazards of ordinary wax — makes rubber burns, stains and surface damage easy to get off — won't crack or check — won't discolor any floor surface. It's the finest surface finish available to keep floors shining, beautiful and safe!



specific and applicable accident-prevention material for their departments.

At one of the National Safety Congress sessions, a nurse lamented the fact that a nurse often was not recognized as a valuable aid in the safety program. Recognition can and should be given. The nurse can be an important part of every safety committee, accident investigation committees, and labor-management committee. Her neutrality, her skill, her in-

terest, her enthusiasm, her proven worth make her safety's best aid.

Safety Library

(From page 64)

by U. S. Bureau of Labor Standards, Washington 25, D. C., 1950. 35p. Free (Bulletin No. 117).

Dust

Relation Between and Precision of Dust Counts (Light and Dark Field) from Simultaneous Im-

pinger—Midget Impinger, Electric-Precipitator and Felt-Paper Samples. Published by U. S. Bureau of Mines 1949. 35p. Available from The Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pennsylvania. Free. (Report of Investigations 4568).

Health

Infection and Sepsis in Industrial Wounds of the Hand. By R. E. O. Williams and A. A. Miles. Published by Medical Research Council 1949. 87p. Available from British Information Service, 30 Rockefeller Plaza, New York 20, N. Y. Price 40¢ (Special Report Series No. 266).

Manlifts

American Standard Safety Code for Manlifts. Published by American Society for Mechanical Engineers, 29 West 39th Street, New York 18. 1949. 22p. Price 55¢

Mines

A Study of Stray Currents in Pennsylvania Anthracite Mines. Published by U. S. Bureau of

The Better Way TO CLEAN EYE PROTECTION IS THE K-LENS-M WAY

Industries report that eye injuries have decreased—with considerable savings of time and effort. To increase the usefulness of your safety eyewear use

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How to Make EVERY STEP a Safe One!

WHERE spilled oil, grease, water threaten the underfoot safety of walking workers, make every step a SAFE one by covering those danger spots with Oakite Composition No. 71.

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Mines 1950—3p. Available from the Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pennsylvania. Free (Report of Investigations 4637).

A Test of Treated Timbers in a Mine at Negaunee, Michigan. Published by U. S. Bureau of Mines. 1950. 6p. Available from the Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa. Free (Report of Investigation 4622).

MAGAZINE ARTICLES

Aeronautics

Maintenance Comes of Age. By G. J. Brandewiede (In Supervision—Feb. 1950, p16).

Cranes

Maintenance of Automatic Safe Load Indicators (In British Journal of Industrial Safety Winter 1949—p176).

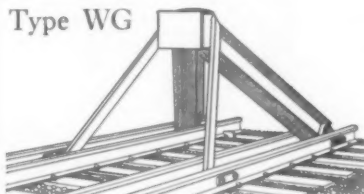
Clothing

Dress to Live (In Standardization—Feb. 1950 p41).

Color

A Survey of Color in Industry. By Perry Moon and Domina Eberle Spencer (In Illuminating Engineering—Jan. 1950, p39).

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Let us help you modernize your tracks; make them efficient for every day use and safer too. Catalog free. When a bumping post is knocked out don't simply say "they hit it too hard" and let it go at that. Your investigation will lead you to use Hayes Posts, designed by engineers for engineers. Hayes has led since 1903 in safety devices for railway side tracks; Bumping Posts, Cushion Wheel Stops and Derails.

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Dust

Dust Nuisance Licked by Precipitator at Lehigh's Sandt's Eddy Plant. By William M. Avery (In Pit and Quarry Feb. 1950, p72).

Elevators

Elevator Accidents Can Be Cut 85 Per Cent. By Glen K. Ochs (In Ohio Industrial Commission Monitor, Jan. 1950, p8).

Fire Protection

Automatic Foam System Protects Outside Hazard (In Fire Engineering—Feb. 1950, p117).

Large Loss Fires of 1949 and Their Lessons (In National Fire Protection Quarterly—Jan. 1950—p151).

The Noronic Pyre (In National Fire Protection Quarterly—Jan. 1950—p213).

Floors

Floor Care Pays Off (In Modern Materials Handling—Feb. 1950—p18).

Health

Estimates of Disabling Illness

IN THE NEW FLORSHEIM PLANT
26 MODERN, SANITARY
BRADLEY
WASHFOUNTAINS

Architects and Engineers: Shaw, Metz & Dolie.
General Contractors: Campbell, Lowrie, Lautermilch.

Each 54-inch Bradley provides facilities for 8 to 10 persons simultaneously.

Modern buildings and institutions are naturally provided with wash facilities providing the maximum in sanitation, efficiency and economy. Therefore, more and more installations feature Bradley Washfountains.

Bradleys provide a spray of clean, running, tempered water for the tops in *sanitary* washing facilities. Foot-control eliminates faucets and contagious washbowl contacts, while the self-flushing bowl prevents dirt collections.

Each Bradley serves 8 to 10 persons simultaneously, and replaces 8 to 10 ordinary wash basins. Water consumption is reduced, maintenance of 16 to 20 faucets is eliminated, piping cut 80%, and more washing facilities made available in a smaller space without crowding. **BRADLEY WASHFOUNTAIN CO.**, 2237 W. Michigan St., Milwaukee 1, Wis.

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Prevalence in the United States. By Theodore D. Woolsey (In Public Health Reports Feb. 10, 1950—p163).

Industrial Head and Back Injuries. By Walter Z. Baro (In Industrial Medicine and Surgery, Feb. 1950—p69).

Inter-Plant Cooperation Cuts Accident Hazards. By Annette Rich (In Trained Nurse—Jan. 1950, p33).

The Toxicity of Ozone. By Clark E. Thorp (In Industrial

Medicine and Surgery, Feb. 1950, p49).

Housekeeping

We Licked Dirty Aisle Dangers by Mechanized Cleaning and Saved Time and Money. By H. S. Simpson (In Factory Management and Maintenance—Feb. 1950—p91).

Lighting

Lighting for Canneries (In Illuminating Engineering, Jan. 1950—p45).

Mines

Health and Safety at Pioche. By

S. S. Arentz (In Mining Engineering—Feb. 1950—p204).

State Mining Safety Promoted by New Code, Inspection Unit and Operators' Own Program (In New York Industrial Bulletin, February 1950—p14).

Pressure Vessels

Methods in the Investigation of Pressure Plant Accidents. By Sydney D. Scover (In British Journal of Industrial Safety, Winter 1949—p171).

Printing and Publishing

Safety Program Pays at W. B. Conkey Division of Rand-McNally Firm. By George Eaton. (In The Inland Printer Feb. 1950—p64).

Public Employee

State Highway Department—Accident Prevention Picks Up—Momentum (In Ohio Industrial Commission Monitor Jan. 1950—p4).

Public Relations

Men, Machines and Methods. How and Why to Hold Plant Open-houses. By Roger Williams, Jr., (In Chemical Engineering Feb. 1950—p195).

Are You Fully Protecting the Feet of Your Employees?



"SANKEY" IMPROVED FOOT GUARD equipped with Anti Skid TOE CLIP.

"SANKEY" FOOT GUARDS consist essentially of a metal shield to be worn over the shoe whenever the foot is in danger of being either crushed or cut. The metal shield is designed to furnish a maximum amount of protection to the entire front of the foot—not merely the toes alone, but also to the instep against hazards from falling, rolling or flying objects, or from accidental tool blows. Write for literature or a trial pair.

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Combination
Foot-Shin Guard



Foot Guard Equipped
With New Anti-Skid
Full Sole



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Protect Operators • Increase Production

Wiesman cam-action press guards enable operators to work at top speed without fear of accident. Guarding is effective and completely automatic . . . does not hamper operator's vision or movement. For all sizes and styles of presses. Used by hundreds of firms. Inexpensive . . . easy to install.

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Write for descriptive folder and 30-day FREE trial offer.

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31 South St. Clair Street • Dayton 2, Ohio

Poster Contest Sells Safety to Youngsters. By Josh Ellis (In Electric Light and Power—Feb. 1950—p80).

Standards

Safety Engineering Standards, Their Development and Use. By Edward B. Landry (In Standards World—Jan. 1950—p59).

Workmen's Compensation

Has Occupational Disease Legislation Kept Pace With Exposures of Present Industrial Processes? By Ashley St. Clair (In Compensation Medicine—Dec. 1949—p24).

Wise Owl Clubs

(From page 21)

"We are sorry that the accidents occurred but we are proud of the men who fortunately were wearing their glasses when the accidents took place.

"To add distinction to this group of men we have requested membership in the Wise Owl Club of America. . . . The four charter

members . . . will spread the ideals of the eye department; they will attempt to make every employee appreciate his eyes in the way they appreciate their own."

Unqualified endorsement of the club has been given by J. F. Wilson, safety supervisor of the Chattanooga plant of E. I. duPont de Nemours & Company. Reporting on the award ceremony for two charter members Mr. Wilson adds: "We feel sure that there is a greater consciousness of the need for wearing eye protection

out in the factory areas. The emphasis that this part of our safety program has put on eye protection has possibly in some cases encouraged our employees to request more complete protection for their eyes." Club chapters have also been organized by duPont at Old Hickory, Tennessee, and Parkersburg, West Virginia.

Five of the plants of Reynolds Metals Company now have clubs. In a letter of congratulations to NSPB on its national sponsorship of the plan, R. S. Reynolds, Jr.,

REDUCE SLIPPING HAZARDS!



INDUSTRIAL FOOTWEAR



KLINGTITE BOOT

Very flexible, over-the-sock boot with cushioned insole and long-wearing anti-slip TOP-SIDER sole.

Black, men's full sizes 7-12.

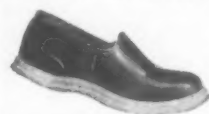
Short, 9.95
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WORK RUBBERS

Lightweight safety on the job. White anti-slip TOP-SIDER sole.

Black, men's full sizes 7-12. 4.95



Special prices in case lots. At your dealer or write us.

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Let SIGHT SAVERS Supplement your EYE SAFETY PROGRAM



New SIGHT SAVER tissue dispenser contributes to

Safety Sight Saver tissues clean and polish eyeglasses quickly, easily and thoroughly . . . wipe away the best excuse men give for not wearing safety glasses. It doesn't make sense to ask a man to work with dull tools — or with dirty safety glasses.

Efficiency Employees, especially skilled craftsmen, work more safely, more rapidly, more accurately and with less eye strain if their glasses are Sight Saver clean.

A Safety Feature That Pays for Itself . . . many times over — by reducing the time required to keep glasses clean — by making safety glasses more comfortable to wear — by increasing accuracy and decreasing eye fatigue.

Easy to Install . . . Easy to Service



All-metal Sight Saver dispenser can be installed in a few minutes . . . serviced by simply inserting refill packet about once a month. Fool-proof, permanently lubricated mechanism dispenses one 3" x 7" tissue at a time.



DOW CORNING CORPORATION • MIDLAND, MICHIGAN

president of the company, writes: "I heartily endorse this idea and am glad that we can take an active part in it."

General Electric Company already has 40 chapters in its Apparatus, Chemical and Plastics Departments. Represented in this large group of plants are thousands of employees for whom the Wise Owls will serve as symbols of safety.

Procedure for setting up a plant chapter is simple:

1. Any industrial or commercial firm interested in safeguarding eyesight

and increasing safety-mindedness among its employees is eligible to enroll in the plan and receive a charter by filling out and returning to NSPB the proper application blank.

2. Any employee who during his employment has had one or both eyes saved by wearing protection at the time of an accident is eligible for charter membership in the club. New members become eligible as their cases are reviewed and approved by the membership committee.
3. The safety supervisor at each plant acts as chairman of the club membership committee. Two charter members serve with him on the

committee for a period of twelve months, at which time two other members replace them.

4. The membership committee passes upon the eligibility of candidates for club membership. (Damaged goggle lenses or other evidence must be presented to the committee.)
5. When a candidate has been properly certified by the club membership committee, a report of the case is approved by a designated company official and forwarded to NSPB on a special form provided for the purpose. The charter membership of the club consists of all employees eligible at the time the club is formed.
6. The company pays a fee of \$2.00 for permanent membership of each approved employee. This fee is used for the purchase of pins and mounted membership certificates and to help defray operating expenses of the club at NSPB headquarters.
7. Club members pay no dues or other charges.
8. On receipt of each case report from a plant NSPB furnishes a gold Wise Owl pin, a button to be worn on work clothes and a certificate; these to be presented to the new member at a suitable ceremony arranged by the club membership committee.

Only in Safe-Hi LADDER SHOES

DO YOU GET THESE EXCLUSIVE FEATURES BECAUSE...

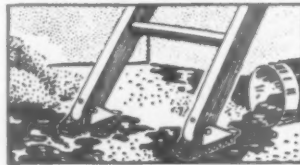
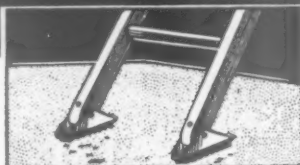
SAFE-HI has straight ridges of mixed cord and rubber in the Tread

For smooth, dry surfaces, you must have **rubber** . . . because rubber holds firmly on DRY surfaces, but would slip on wet surfaces.

For wet, slippery surfaces you must have **cord** . . . because cord holds securely on wet surfaces.

For greasy, soapy surfaces, you must have **straight ridges** . . . because ridges cut thru and scrape off foreign matter, and grip the surface itself.

For snowy, icy surfaces, you must have a **spike**—and a sharp one . . . because dull spikes are a hazard. The SAFE-HI spike is self-sharpening . . . always sharp.



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Penetred SAFETY SOLES
U.S. Pat. Reg. Construction Patents Applied For

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\$2.00 POST PAID
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16 ROWS OF WIRE Claws
IMBEDDED IN RUBBER

PROVIDE SURE FOOTING ON ANY SURFACE

You'll have SURE FOOTING the minute you put on the soles and your shoes will be dry, because PENETRED Safety Soles are made of High Class Rubber that you securely cement to your work shoes, boots, and rubbers . . . they grip even better as they wear. Sold on a Money Back Guarantee.

State size when ordering.
Send check or money order.
FREE SAMPLE UPON REQUEST

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Ruling on the eligibility of employees for club membership requires careful consideration by the plant committee. Sometimes the cases are puzzling. A distinction must be made between routine incidents, where particles, splashes, etc., may frequently strike the goggles, and accidents in which there is severe damage to the eye protector. There must be definite evidence that vision in one or both eyes has been saved, not merely that the employee has escaped eye injury.

Accidents with an element of mystery are not uncommon, emphasizing that it is wise to "expect the unexpected." Loyce Newman, an inspector at Evansville Works of International Harvester Company, was standing near a punch press waiting for the set-up man to make a final adjustment on the ram. Suddenly an object flew through the air, striking the right lens of Newman's goggles with enough force to shatter it. There was no injury to the eye. What the object was or where it

came from could not be determined.

James Ryan, a packer at Heintz Manufacturing Company, was lifting a filled carton from a conveyor when something struck his right lens and shattered it. "After a lengthy and careful investigation," the report states, "we could not determine what caused the accident as there were absolutely no operations anywhere in the vicinity that could have caused an accident of this type. It is, however, self evident that the accident did

occur and had Jim not worn safety spectacles his eyesight would undoubtedly have been permanently impaired."

Three of the cases reported involve men who had already lost the vision of one eye and were saved from total blindness when the protective lens covering the good eye withstood the impact of a flying object.

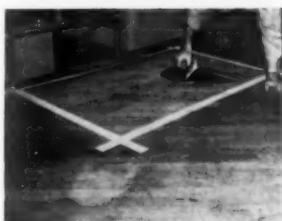
Thomas Purvis, a laborer at Louisville Works of American Radiator & Standard Sanitary Corporation, had been on his job

ferrox A NON-SLIP,
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ABRASIVE FLOOR COVERING

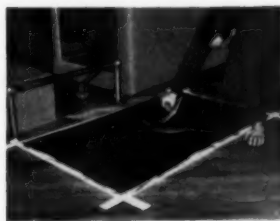
FOR SAFE FOOTING
UNDER WET, DRY OR OILY CONDITIONS

*anyone can apply ferrox**

... on any floor or walking surface. First, clean floor surface until free from dirt, grease, etc. Paint does not need to be removed if it has a good bond.



For Small Areas, Mask Off—
With steel trowel, apply 1 thin coat.



Apply Second Filling Coat—
After drying first coat 1-3 hours.



Remove Masking Tape—Allow 8-10 hours drying. Then ready for use—underfoot safety assured.



Safe Floors at Low Cost
1 gal. can—\$7.50 per gal.
5 gal. can—\$7.25 per gal.
One gallon covers 40 square feet.
Colors: red, gray, blue, black, green.

For full information, use coupon below, or Phone Bob Easty, ESsex 3-7060

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Recommended for:

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The commonsense way to CLEAR AND PREVENT ATHLETE'S FOOT

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**SAFE, NON-POISONOUS SKIN TOUGHENING
TO COUNTERACT THE SOFTENING
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**NEAT, CLEAN
ODORLESS,
PLEASANT TO USE**



**BATHERS LIKE ONOX
IT MAKES THE FEET FEEL FINE**

Recent research has upset former theories regarding the control of Athlete's Foot. ONOX is revolutionary. A safe, non-poisonous skin toughener does the work. You may test it under any conditions you choose to impose and without obligation. For example:

- *We will ship prepaid, your trial order for any amount of ONOX and equipment. Use it for 60 days. If at the end of that time ONOX has not proved itself to your complete satisfaction you owe us nothing.*

We would like to send you the simple details of the ONOX method now used by hundreds of institutions—coast to coast.

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Important: Did you note the "Radical reversal of medical teaching" in TIME Magazine? A report based on 10 years observation by 91 U. S. Skin Specialists calls Foot Baths "Futile"—"Illogical"—"Potentially harmful." Onox on the other hand is a safe, non-poisonous skin toughener. IT STEPS UP RESISTANCE... INSTEAD OF BREAKING IT DOWN! Try the Onox way. You'll be surprised!

(Copy of TIME article sent on request.)

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made **INTERESTING**

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ACCIDENTS OCCUR

EVERY EMPLOYEE A
SAFETY MAN

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Safety News
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PEP UP YOUR SAFETY EFFORTS WITH SOMETHING DIFFERENT

Here is Industrial Safety at a Big Saving in Time and Money. All the causes of accidents directed to your employees monthly. Just the way they like it with Color, Humor and Interesting Pictures that impress. How else can workers be taught to know, avoid and report Unsafe Acts & Unsafe Conditions, that cause your accidents, for so little money.

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only three and a half hours when an accident occurred in which his eye was saved by his cup goggles.

Homer Pool and William Bronson, two galvanizing operators at A. B. Chance Company, were dumping a 200-pound carboy of sulfuric acid into a pickling vat when the carboy accidentally was dropped. The entire faces of both men were burned by the acid, which also covered their goggles completely. Yet their eyes were not affected.

Many plants have arranged public ceremonies for the presentation of Wise Owl Club membership pins and certificates. Heintz Manufacturing Company, for example, honored its first members during plant-wide celebration of Heintz Safety Week. Present at this special ceremony were representatives of the Philadelphia Safety Council; American Society of Safety Engineers, Philadelphia and Delaware County Chapters; local Department of Labor and Industry, as well as the company president and other officials.

Herring-Hall-Marvin Safe Company, Hamilton, Ohio, first to sponsor a chapter in that state, planned an interesting presentation ceremony in which Hamilton Safety Council, National Safety Council and NSPB representatives as well as company officials participated.

Cleveland Transit System has made Wise Owl awards at its big CTS Family Safety Rally in the Public Auditorium; also at special luncheons attended by local and out-of-town safety officials.

Fuller Manufacturing Company of Kalamazoo, Mich., invited high school students to witness initiation ceremonies for three WOC charter members. F. C. McManus, the company's transmission plant manager, is deeply interested in teaching safety principles to these young people, to prepare them for industrial work. Members of the local safety council and 77 company supervisors were present at this evening ceremony. After the presentation a movie was shown and the visitors were taken on a tour of the Fuller plant.

Excellent newspaper, radio and even television publicity has resulted from many of these events

and the companies have devoted considerable space in their house organs to the promotion of the club. Very valuable for exhibit and publicity purposes are the photographs taken routinely by Ladish Company of all damaged goggles and spectacles, showing in each case the object that caused the impact (see accompanying photo).

Of particular interest and significance is the organization of a Wise Owl Club in the High School at Hastings-on-Hudson, New York—the first vocational school chapter in the United States. The Hastings Board of Education last year adopted a complete eye safety program for the industrial arts department and appropriated \$1,200 for the purchase of safety glasses for all students—boys and girls—working in the three shops. The idea was conceived and developed by Spencer B. Hopping of American Car and Foundry Company who is past president and currently a member of the Hastings Board of Education. Mr. Hopping has had much to do with the organization of Wise Owl Clubs in ACF's 10 plants and in launching them on a country-wide basis under NSPB sponsorship. It was natural that he should foster the plan in his own community and he has had complete cooperation from the other local school administrators.

In presenting the Wise Owl Club charter to the president of the student general organization at Hastings High School, Dr. Franklin M. Foote, executive director of NSPB, congratulated faculty and students on having one of the finest school plants in the country, and expressed the hope that many high and vocational schools would follow their leadership in adopting an eye safety program.

The Hastings project suggests that many plant officials, safety engineers, etc. might profitably offer their services to local education authorities in getting safety training established in vocational schools and industrial arts courses.

Many interesting reports relating to future development of the Wise Owl Club are reaching NSPB as the 152nd charter is issued. More large companies are enrolling groups of plants: Missouri

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Portland Cement Company already has signed for four; Union Carbide and Carbon Corporation for five; United States Rubber Company for six.

The Jamestown, N. Y., Safety Council, whose members are manufacturers in that area, is sponsoring the club on a group basis, paying membership fees and arranging public ceremonies for the presentation of awards.

The Industrial Management Council of Rochester, N. Y., is considering a city-wide plan under which the Council would act as sponsor for local industries with a special Wise Owl Committee.

The City of Oakland, Calif., has organized a chapter and reports satisfaction over this adjunct to its thriving safety program for 3,277 city employees.

As NSPB enters its second year of national sponsorship the roster stands as follows: Club chapters, 152; total number of employees in the sponsoring plants, 190,494; club membership, 781; eyes saved

Hold Everything!

for every three workers injured on-the-job last year, four were hurt off-the-job

Cartoon-illustrated HOLD EVERYTHING is a sparkling little booklet that covers all these major traffic, pedestrian, and home accidents . . . and at a rock bottom cost. HOLD EVERYTHING costs only a few cents a copy.

HOLD EVERYTHING drives home a serious message . . . with a smile. Takes over where your plant program



leaves off. This colorful off-the-job booklet speaks for you . . . with suggestions on swimming, sun-tanning, and just plain "car sense." There is a handy home check list to make those stay at home "vacations" a lot safer. Cut down vacation lost time by ordering copies for each of your workers. Send in your order, today.

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NATIONAL SAFETY COUNCIL

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in accidents recorded, 831; saving in average compensation, \$2,077,500; saving in human suffering, medical costs, lost production—incalculable.

How do the Wise Owls themselves feel about the club?

"You might be interested to know," writes J. E. Moore of Corporate Service, "that the latest Wise Owl at Whitman & Barnes, Walter Wolf, is so proud of his certificate that he had the maintenance department make a special position of honor for it in a prominent place around the pots in the heat treat department."

That expresses pretty well the satisfaction these wise and conscientious employees have shown over the recognition they've received.

Health Physics

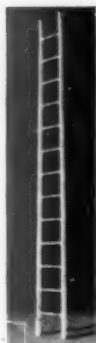
(From page 25)

perature of the intake.) Plans are under way for the construction of such piles.

All piles produce penetrating radiations which would be very harmful to man if they were not surrounded by concrete walls six or more feet thick. Radioisotopes that are removed from the piles from time to time continue to give off radiation. Some lose most of their activity in a matter of seconds while others continue to give off radiation for thousands of years.

Theoretically, no thickness of material will stop all gamma rays and neutrons completely, so in practical problems with neutrons and gamma rays we use the "half thickness." That is the thickness of material that will reduce the intensity of the radiation to half its original value.

Because of the low penetrability of alpha particles, they are not considered to produce appreciable damage when given off by sources outside the body. For this same reason, radioisotopes producing low energy beta radiation cause only superficial (skin) damage when a person is exposed externally to them. Neutrons and gamma rays, on the other hand, require thick shields to reduce their intensity appreciably, so these penetrating radiations intro-



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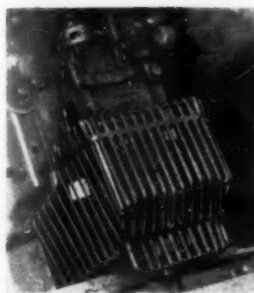
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duce what is called an external radiation hazard unless they are properly shielded.

Since alpha and beta emitting sources lose their energy in a small radius from the source, they cause a much greater local damage than gamma sources when they are located within an organ of the body.

Radioisotopes may enter the body by ingestion, by inhalation, as solvents through the skin, or they may enter the body through cuts or puncture wounds.

Exposure averages at Oak Ridge National Laboratory for a typical six-month period showed a factor of safety of better than 10. Other Atomic Energy Commission plants at Hanford, Wash., and Argonne National Laboratory in Chicago have maintained similar records since their operations began five or six years ago. This is a remarkable achievement in view of the fact that if all the radium in the world available to man were brought together in one place, its radiation would be less than one millionth of that from a single pile, yet many people have suffered and died from the careless use of radium during the past thirty years. No one on any of the three AEC operations mentioned has received any radiation damage.

One of the principal reasons why radiation accidents on AEC operations have been maintained at a minimum is the existence of strong health physics organizations that devote full time to study of radiation problems and methods of reducing radiation exposure to a minimum. Altogether there are about 500 persons doing health physics work in the United States. Their work begins with the location, planning, design and construction of new piles and laboratories where radioactive materials are to be worked with. They do research and carry on training programs not only for local operations but also for many industrial, public health service, university and military organizations that have responsibilities for radiation protection.

Many hospitals, research and industrial laboratories all over the United States are using radioac-

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tive materials that are produced and shipped out from the Oak Ridge National Laboratory and many universities are producing their own radioisotopes with cyclotrons and other accelerators. As a result, radiation problems extend far beyond AEC operations. It is, therefore, the responsibility of public health and safety groups to inform themselves of these new problems and to ascertain that safe radiation standards are maintained and that appropriate radiation protection measures are enforced. The AEC operations have set safety standards and developed methods of determining whether or not radiation protection is adequate. These same standards and methods of protection are being applied satisfactorily in universities, hospitals and laboratories.

It is the practice of most institutions to require all persons who enter radiation areas to wear film badges and/or pocket meters. These meters are read at the close of each shift and cases of appreciable radiation exposure are in-

vestigated immediately so that unnecessary radiation exposure will not be continued from day to day.

Careful records are maintained of all the accumulated external radiation exposures to X, gamma, beta and neutrons for the protection of workmen and operators. Urinalyses are made of persons working with certain of the radioisotopes to determine if they are being accumulated in their bodies.

At regular intervals, health physicists survey all working areas where there is a radiation hazard

and indicate to the persons involved the safe working time. A device known as a "cutie pie" is one of the many health physics instruments used to determine safe working time. Special protective clothing must be provided for operations where body contamination is possible. Contamination is checked by a hand and foot counter and a GM tube probe is used to check clothing.

Often special masks must be worn when entering "hot" cells, repairing contaminated hoods, sol-

PROTECT EMPLOYEES

against

UNNECESSARY HEAD INJURY



Here, at last, is a light weight, plastic safety helmet, resistant to 3,000 volts of electricity, and by actual test, able to sustain 80 foot pounds under ball impact. What's more, the Paramount safety helmet is light as a feather—comfortable, waterproof, adjustable to head sizes (6½ to 8), and with enough clearance space between head and helmet crown to cushion and absorb intense impact. Genuine leather suspension band has long life and stands up under years of use.

For Use in Mines

A miner's lamp bracket, adaptable to every type of lamp, can be furnished either on helmet or cap. Being entirely a non-conductor of electricity, this is the safest miner's helmet available.

Winter Lining

For increased warmth, a two piece lining with a flannelette facing is provided. The lining is sanforized, warm, and is made in a full range of head sizes.

As the producers of millions of M1 Army helmet liners, the famous Cairns-Paramount Firemen's helmet, the Army, Navy and Civilian Air Corps crash helmet for jet pilots and other air corps personnel, the Army Quartermaster Tank Corps helmet, we are specialists in this field and offer you greater protection with lighter weight.

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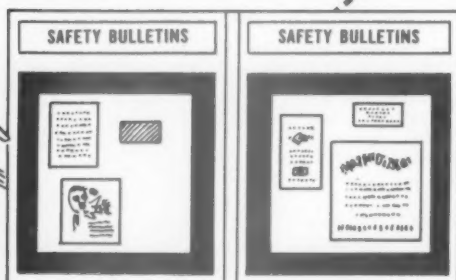


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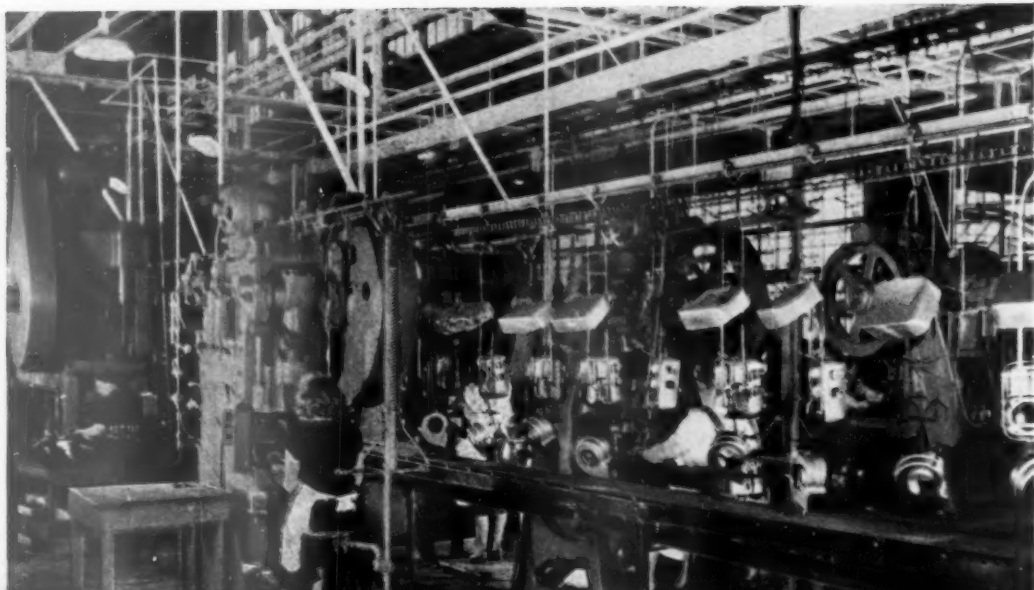
dering a contaminated pipe, etc. With a fish pole meter, radiation can be measured at a distance or around a shield. A monitron is a stationary instrument that sounds an alarm if the radiation in the immediate area reaches an unsafe level.

All protective clothing must be washed at the laboratory and sometimes special chemicals must be used to remove the radioisotopes. Afterwards they must be checked carefully with Geiger counters and proportional counters to make sure the radioactive contamination is reduced to a safe level.

All the air and water discharged from a plant working with radioisotopes should be checked constantly to make certain that the contamination beyond the laboratory does not at any time exceed safe limits.

The university laboratory or hospital will be working with only a few millicuries of radioactive material whereas the AEC laboratories work with millions of curies. Nevertheless, it is just as important that they maintain the same high standards of protection. Where only three or four men are working with radioisotopes it will not, in general, be necessary to employ the full-time services of a health physicist, but even here one competent person—perhaps one of those working with the radioisotopes—must be placed in charge of radiation protection. He must see that buildings and equipment are adequate for the proposed work; that the hoods and ventilation system will prevent the accumulation of radioactive dusts and gases in the laboratory; that wall surfaces and floor coverings are of such material that they will not collect radioactive contamination and that they can be decontaminated readily.

Proper instruments and radiation protection devices must be made available and used properly. In general, no radiation hazard should be introduced to those engaged in this work or to others in the neighborhood of the laboratory. Only if these precautions are taken can this new industry continue to be one of the safest in the country.



Increased efficiency...
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Safety colors were used to reduce accident hazards.

● "As a result of repainting according to COLOR DYNAMICS", reports W. A. Mattie, superintendent of the Heater Division, "we have noticed improvement in operating efficiency, employee morale and general plant cleanliness.

"When our plant was a dull gray, workers seldom bothered to pick up small parts used in assembly operations. They were usually swept up and discarded. Today, employees are so proud of their clean surroundings they pick up these items, effecting worth-while savings for us.

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IMPORTANT

All posters displayed on these pages, except the jumbo poster, will be available through 1950, and may be secured as a part of N.S.C. membership service, or by purchase.

Posters numbered 8700 and up are new posters. Others are among the 744 posters shown in the 1950 Poster Directory.

Write to Membership Dept. of N.S.C. for further information.



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8976-A

8½x11½



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8358-A

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7159-A

8½x11½



8391-A

8½x11½



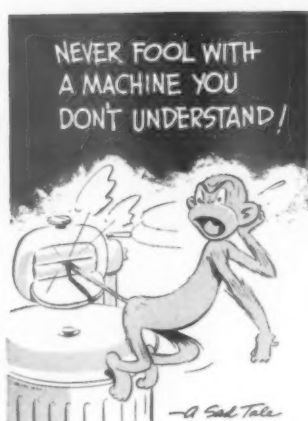
NATIONAL SAFETY COUNCIL

V-6356-A

8½x11½

Electrotypes or poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors
(Available only in sizes indicated)



NATIONAL SAFETY COUNCIL
8975-C 25x38



JUMBO POSTER FOR MAY, 1950

Jumbo posters 9' 11" by 11' 8" in size, designed for outdoor use, are issued monthly. They are available to members for \$42.50 annual subscription.



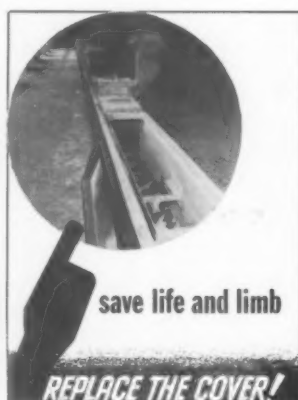
NATIONAL SAFETY COUNCIL
8880-A 8½x11½



NATIONAL SAFETY COUNCIL
8927-A 8½x11½



NATIONAL SAFETY COUNCIL
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NATIONAL SAFETY COUNCIL
7413-B 17x23



NATIONAL SAFETY COUNCIL
7022-A 8½x11½

See box on page 98 for information about these and other National Safety Council posters.

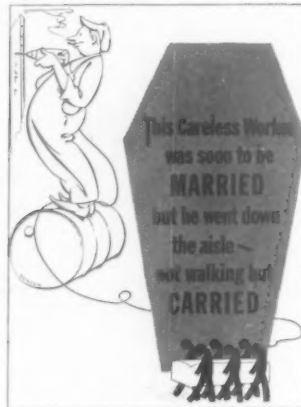
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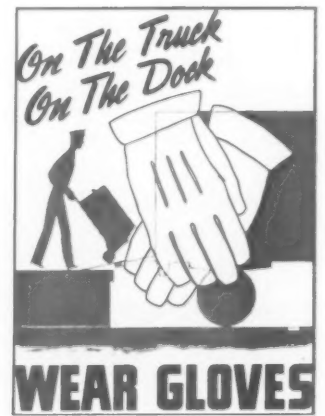
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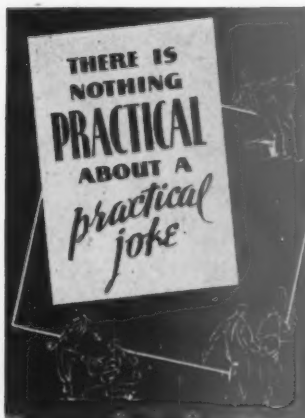
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NATIONAL SAFETY COUNCIL

8935-B

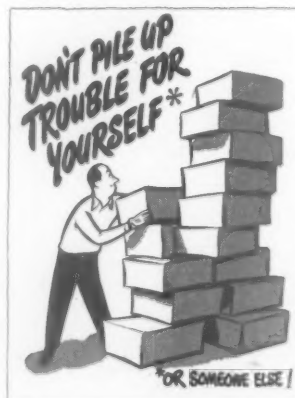
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NATIONAL SAFETY COUNCIL

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NATIONAL SAFETY COUNCIL

6051-B

17x23



NATIONAL SAFETY COUNCIL

8277-B

17x23



NATIONAL SAFETY COUNCIL

8913-A

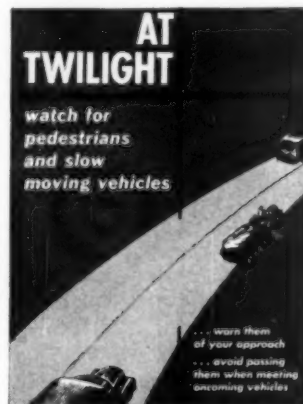
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NATIONAL SAFETY COUNCIL

8338-A

8½x11½



NATIONAL SAFETY COUNCIL

V-8963-B

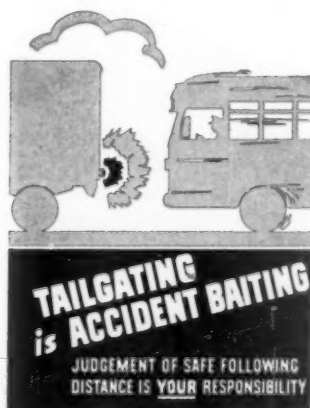
17x23



NATIONAL SAFETY COUNCIL

V-8961-A

8½x11½



NATIONAL SAFETY COUNCIL

V-8958-A

8½x11½



NATIONAL SAFETY COUNCIL

V-8962-B

17x23

See box on page 98 for information about these and other National Safety Council posters.



Jumbo Posters

To bring the message of safety not only to workers but to the general public as well, the National Safety Council's series of Jumbo posters provides an effective medium.

Carrying three-color illustrations and brief safety slogans which apply to everyone, these posters measure 11 feet 8 inches wide by 9 feet 11 inches high. They are weather-proofed and come in eight sections for easy mounting.

Twelve different Jumbo posters are produced each year. They are available on an annual subscription basis, a poster being delivered each month in time for posting on the following month. Only the poster for the current month can be shipped; back issues are not stocked.

Member prices: 1 to 9 subscriptions, \$42.50 each; 10 to 99, \$40.00 each; 100 or more, \$38.00 each.

Photocscripts Revised

The first two Photocscripts issued have been revised to conform in number of pages, format, and color to the more recent picture booklets in this series of 12.

One Photocscript, entitled "Falls," is concerned with causes of falls in industry and ways to prevent them, and places particular emphasis on safe use of ladders. The other, "Handle with Care," illustrates safe methods of lifting, carrying, and piling materials, and stresses the importance of hand and foot protection for workers doing materials-handling jobs.

Like the other booklets in this series for employees, each of these two pocket-sized training aids now has 16 pages of on-the-job photographs whose safety pointers are underscored with brief lines of copy.

Photocscripts can be used in special campaigns, distributed as payroll inserts, handed to men on the job as reminders of safe practices, or placed in information racks as part of the regular safety program.

Others in the series are "Machinists' Hand Tools," "A Clean Plant," "Prevent Fire," "Get First Aid," "Dress for Safety," "Learn Safety," "Maintenance Tools," "Protect Your Eyes," "Construction Equipment Safety" and "Men and Motive Power" are Photocscripts prepared especially for construction workers and railroad shop and roundhouse workers.

Member prices: 1 to 9 copies, 10 cents each; 10 to 99, 6 cents each; 100 to 999, 5 cents each; 1000 or more, 4 cents each. Samples on request.

"Fleet Safety Manual"

A reorganized, revised, and expanded Fleet Safety Manual was released for distribution this month by the Motor Transportation Bureau to members receiving AA-1, A-2, and B-2 types of administrative units.

The manual covers "The Balanced Fleet Safety Program," "Selection of Drivers," "Driver Training," "Accident Reports and Records," "Contests," "Safe Driver Awards," "Sustaining Driver Interest," plus a "miscellaneous" section covering safety posters, protective coloring, safety meetings, accident investigation, braking and stopping, garage and repair shop safety, carbon monoxide, and fire extinguishment.

The manual offers for the first time an up-to-date and complete coverage of the major motor transportation accident prevention techniques and represents the accumulated experience of members of the Motor Transportation Bu-

reau from all branches of the industry.

Most of the material in the manual is entirely new. The balance comprises revised editions of previously published materials. The process of revision will be continuous to keep manual holders abreast of progress made in the automotive safety field.

It is bound in a red leatherette loose-leaf binder for convenience in adding revisions and replacements.

New Safety Reprints

Two new Safety Reprints are now in stock. "The Highway Engineer Is a Safety Man," Safety Reprint Construction No. 11 (four pages), discusses the problem of protecting employees and the public during road maintenance work. By C. L. Motl, it is reprinted from the NATIONAL SAFETY NEWS.

From the FIA *Sentinel*, published by the Factory Insurance Association, "Hazards of Glass Forming Machines," Safety Reprint Glass and Ceramics No. 1 (one page), is concerned with fire prevention in plants manufacturing glass products by use of high-speed automatic forming machines.

Member prices for each of these publications: 1 to 9 copies, 15 cents each; 10 to 99, 11 cents each; 100 to 999, 7 cents each; 1000 or more, 6 cents each.

"Accident Facts"

The Condensed 1950 Edition of *Accident Facts* is now available. This one-page release contains preliminary estimates on 1949 accident experience, and lists a few outstanding facts regarding the national accident situation.

Single copies of this edition will be sent free upon request. Quantity prices may be obtained from Council headquarters.

"Cutting Paper Cores"

Data Sheet D-P.P. 9, "Cutting Paper Cores," has recently been added to this National Safety Council series of technical publications.

Intended as a guide for safety engineers and superintendents in the pulp and paper industry, this

8-page data sheet is illustrated with both photographs and drawings. It shows various kinds of guards for fixed core saws, movable core saws, and circular knives, with full discussion of the methods presented.

Member prices: 1 to 9 copies, 15 cents each; 10 to 99, 11 cents each; 100 to 999, 7 cents each; 1000 or more, 6 cents each.

"The Teen-Age Driver"

Of interest to those throughout industry who are contributing time and effort to the problem of teenage driving in their communities, the pamphlet "The Teen-Age Driver," reprinted from the School and College session of Transactions, 1949 National Safety Congress, will be a helpful source of information.

The booklet includes transcripts of a report on a study of bad driving habits of teen-agers, a discussion of the influence of teen-age drivers on insurance rates, and a panel discussion in which seven high school students gave their points of view.

The price for this 31-page, illustrated pamphlet is 15 cents.

Spanish-Language Materials

Domestic organizations with Spanish-speaking employees or subsidiary organizations in Latin America will find the Spanish-language publications of the Inter-American Safety Council useful in conducting effective safety programs.

The Inter-American Safety Council publishes two magazines, various types of manuals and safe practices pamphlets, as well as safety instruction cards and posters. Further information may be obtained from J. N. Parrott, executive manager, Inter-American Safety Council, 2 Rector Street, New York 6, N. Y.

Ways to Guard Woodlots from Fire

Despite progress in recent years in reducing the losses from forest fires, these scourges still ravage about 30,000,000 acres of timberland annually.

Seventy-five per cent of the country's commercial timberland



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is in small blocks averaging about 62 acres. These are owned by some 4,200,000 individuals.

A forest can't be made fire-resisting like a building but a number of simple measures will help to check losses. The following are recommended by the Forest Service of the U. S. Department of Agriculture:

1. Plow lanes from 4 to 6 feet wide, cutting the forest into 20 or 30 acre blocks if it is large enough. Otherwise, run these fire lanes between your forest and adjoining tracts. See that firebreaks are kept clear of combustible material, such as fallen limbs, needles, leaves, dry weeds, grass or brush.

2. Cut, graze, or plow under weeds and grass on open strips around the edge of the forest or between forest and nearby roads and railroads before vegetation dries out in the spring and becomes a hazard that may be ignited by a match or cigarette tossed from a passing automobile or by a spark from a locomotive or box car brake shoe.

3. Build firebreaks—lanes hoed down to mineral soil—around sawmills, cottages, groups of farm buildings or other structures in the woods to prevent spread of fire from these areas into the forest or vice versa. If you have a picnic spot, build firebreaks around it, too, to prevent a neglected fire from spreading to trees.

4. If slash—tree tops, limbs, etc., left by loggers—is scattered in the forest, see that it is cut or broken into small pieces which will lie close to the ground away from the standing trees.

5. Clean up accumulations of trash in the forest or yards about buildings that may as the weather warms become "hot spots" from which fires may start.

6. See to it that there is a sufficient supply of fire fighting breaks, axes to chop down burning snags, shovels to throw dirt on fires, and water buckets for wetting down smouldering embers, either at a convenient central location or in strategic caches. "Fire swatters," which can be made by attaching 10 by 18 inch rectangles of belting to hoe or rake handles,

are also of special value in fighting grass or piney wood fires.

7. See that wells are in good repair. Provide dipping places in shallow streams or arrange for a supply of water in barrels or other containers in or near the forest so that fire fighters will have a convenient supply with which to fight a fire. Barrels or other containers of sand are helpful in combatting small fires in or near buildings.

8. Prepare and have readily accessible telephone numbers of local fire wardens or other public fire control officials who may be called if needed.

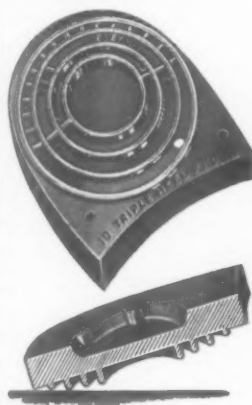
9. Approach neighbors and seek to set up agreements for mutual help if fire strikes.

10. Obtain fire prevention posters from your nearest state, federal, or local forest officer and put them up throughout your neighborhood to warn hunters, visitors, workers, etc., against thoughtless or careless use of fire.

A woman's greatest asset is a man's imagination.

NON-SKID SAFETY

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The Triple Safety Heel was designed to minimize foot slipping accidents. It has a tread design of circular ribs with connecting cross bars that causes suction. In walking it gives road contact of one inch, where ordinary heels contact only on the edge. Laboratory tests show Triple Safety Heel has 87% road contact and traction.

Design permits rubber to flex, absorbing body shocks, minimizing fatigue. Triple Safety Heels will give longer wear and reduce slipping accidents on wet or slippery floors.

WRITE FOR CIRCULAR

TRIPLE SAFETY HEEL CO.
2149 Leland Avenue Chicago 25, Ill.

Discontent Spurs Action

(From page 37)

in the refrigeration industry at the same time as to members.

Through its official organ, *The Refrigeration Service Engineer*, the Committee continues to emphasize safety by publicizing brief items of safety news, as well as timely cartoons which any individual engaged in the business would immediately recognize as practices not conducive to safety.

In all installations of equipment, there is a noticeable lack of information as to the refrigerant used in the installation, operating pressures, or where emergency service can be obtained. Therefore, the committee has compiled a series of placards covering the most frequently used refrigerants. It urges each member of the RSES to post these on every refrigeration installation with which he has contact. These cards are furnished to members at a nominal cost.

The safety committee has been working closely with medical authorities to secure authentic information on the treatment for persons who may have been exposed to toxic refrigerants. This activity is bearing fruit and information is being made available to medical authorities and service engineers who may be so afflicted.

The society works with other allied organizations whenever it feels it can extend its safety program. For example, many items of interest were picked up from material provided by the National Safety Council for safety in the home. As a number of the local chapters have women's auxiliaries, the international safety chairman has, on frequent occasions, compiled information which can be used in local auxiliary meetings.

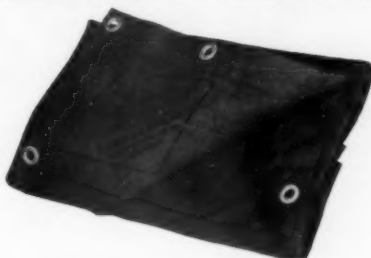
Decals for the use of members are an additional service of the association's safety activities. All of the safety work is on a volunteer basis, and much of its activity has been made self-sustaining. It recognizes that it probably has not as extensive a program as other major industries which may have been engaged in this work for a number of years, but for dollars expended, it is possibly doing one

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These Vinyl links outwear ordinary rubber links many times... Color stays clear and bright... They resist soil absorption, keeping their clean look longer. They are firm and resilient, giving continuous slip-proof SAFETY. They resist oil, gasoline and grease — won't soften or damp rot. Assembly of colored links permits optional designs in red, brown, green, white and black.



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Standard pattern shown above: Black with red link border and center in 17" x 25", 18" x 30", 24" x 36", 30" x 48" ... Made also to your requirements in size and color design... Write today for full story and prices.

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of the most effective association jobs.

The RSES recognizes its responsibility to the public, and consequently it is cooperating with other organizations in seeing that any regulatory measures introduced through municipal legislation are designed to first protect the public's safety and health.

Data Sheet

(From page 29)

Ventilation

28. The ordinary paint spray booth is likely to provide inefficient ventilation for metalizing because of the general air turbulence and the unpredictable rebound effects of the metal particles. However, if the spray booth is deep and the work can be placed well back in it, it is likely to be satisfactory.

29. Local exhaust hoods for metalizing should be designed to fit closely around the work or around the point of application of the metal to give maximum ventilation with minimum air moved.

30. Ventilation at the hoods should give a velocity of at least 500 feet per minute at the point where the metalizing spray impinges on the work. The ducts should discharge outside the building, and the outlet should be far enough from building openings so that dusts or gases will not blow back into the building.

31. For very heavy production work, it may be desirable to provide dust arresters in the exhaust lines and a means for disposing of the metal dust.

32. For metalizing on a lathe, a small local exhaust hood can be fastened to the lathe carriage and move with work. This type of exhaust generally requires considerably less air to do an effective job than does a fixed hood. It should discharge outside the building, exactly as does a fixed hood.

33. If large parts are to be metalized in place, the area in which the work is to be done should be isolated from the rest of the workroom by either a permanent or a temporary partition to prevent contamination of the whole working area. The enclosure

should be exhausted unless efficient local exhaust can be applied to the job.

34. If large parts are to be metalized in the open air, a portable cubicle can be set up about them to cut off extraneous air currents which might disturb the operation. In either instance, the operator should have a supplied air respirator.

Fire and Explosion

35. On metalizing operations, precautions must be taken against fire and explosion. Only minimum requirements are discussed here.

36. Cylinders of oxygen should be stored separately from cylinders of fuel gas. Both in use and in storage, they should at all times be secured against falling. Gauges, pressure regulators, cylinders, and hoses must be inspected regularly to assure their first-class condition. Oxygen equipment, particularly, must be kept free from dirt and grease.

37. There should be no combustible materials under or near metalizing jobs. In particular,

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tanks or pans of flammable solvent should not be permitted in the area. If there is a tank of solvent which cannot be moved conveniently, tests should be made with an explosive gas indicator to ensure a non-explosive atmosphere. These tests should be made at intervals until the job is completed, even though the tank has been emptied and presumably cleaned out.

38. First-aid fire extinguishers for the type of fire likely to be encountered should be immediately available at every metalizing job.

39. The work should preferably be done over a fire-resistant floor and on non-combustible equipment.

ACKNOWLEDGMENT

This data sheet was prepared by the Research Committee of the New Jersey Chapter, American Society of Safety Engineers under the chairmanship of William D. Renner. Grateful acknowledgment is made to members of this chapter and of the Safe Practices Committee of the National Safety Council, who generously contributed information to the committee. The final draft has been approved by the Industrial Conference.

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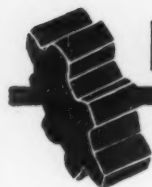
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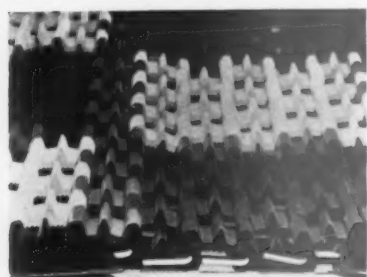


NEW SAFETY EQUIPMENT FOR INDUSTRY

Further information on these new products and equipment may be obtained by writing direct to the manufacturer. It will help in identifying the product to mention this announcement.

Counter-Tred Matting

A new counter-tred matting is announced by American Mat Corp., 1724 Adams St., Toledo 2, Ohio. Especially designed for use as a runner mat, the matting, known as Traffic-Tred, permits perfect recess work due to ease in cutting to accurate fit. It has excellent dirt scrapage qualities and an attractive surface design.



It is $\frac{3}{8}$ inch thick. Three slot constructions are available—closed, open, or open on end of slots only. Ample aeration and drainage are provided.

Chemical Resistant Fabric

Standard Safety Equipment Co., 232 W. Ontario St., Chicago 10, announces the development of Gra-Lite fabric which provides exceptional resistance to a wider range of chemical hazards, including—with special preparation of the compound—resistance to anhydrous hydrogen fluoride. With Gra-Lite compound it is possible to completely seal over garment seams and prevent chemical seepage. For worker comfort, Gra-Lite is more than 40 per cent



lighter than the usual impervious fabric and extremely flexible, even under freezing temperatures. New design features in garment tailoring and the inherent texture of

the fabric prevent binding and clinging.

The compound thoroughly penetrates the fibres of the base fabric which makes it highly resistant to abrasion and harsh cleaning agents. It will not mildew or rot.

Damp-Sweep Tool

An improved technique of sweeping commercial floors has been made possible by the development of a new instrument called the Damp-Sweep Tool introduced by Walter G. Legge Co., Inc., 101 Park Ave., New York 17.

Developed as an efficiency measure, the technique and the tool have greatly reduced sweeping time and reduces the frequency of required mopping and polishing operations. Basis of the Damp-Sweep Tool is the technique of damp-sweeping, which facilitates floor maintenance by cleaning floors more thoroughly than is possible with ordinary broom sweeping. Instead of brushing the floors with a dry broom, they are swept over with a dampened cloth, which picks up fine grit and soot that dry brooms leave behind. The tool is a broom-type instrument. A 40 inch square cloth with a taped hole at its center is dampened and slipped over the handle and wrapped around a brush element before sweeping. The brush element is designed to hold the cloth against the floor, rather than to sweep dirt.

Another feature is the universal joint-type attachment that joins the instrument's 5-foot handle to the brush. It permits the handle to be rotated to any angle while the brush remains stationary on the floor. It also permits the sweeper to maneuver the instrument around corners, or in and out of confined areas with a simple twist of the wrist as he walks.

Industrial Markers

Armor-Flex Co., 8 Garden Lane, Kirkwood 22, Mo., has developed a new process for marking traffic lanes in industrial plants. This marking material is a durable, reinforced, tough, flexible plastic sheet. It is a non-absorbent and resistant to most solvents. The most popular widths of markers are 3 and 2 inches. These are usually cut 6 feet long and laid endwise with spacing of about 6 inches. Thus one marker is used for each lineal foot of line to be marked. The colors are bright yellow, white and brilliant red. Any width is now available so customers can cut their own "pavement messages" such as "Danger," "Stop," "No Smoking," or directional arrows.

The floor or paving where markers are to be installed should be reasonably free from dirt and oil. The cold set adhesive used is a thick viscous liquid and should be trowelled or bladed on in a thin even coating about $\frac{1}{8}$ inch thick. After the adhesive is hard the surface of the adhe-

sive is moistened with naphtha which restores the surface tack. When this surface tack is quite heavy the marker is placed in position and well pressed down or rolled.

Steam Cleaner

Super-Duty Hypressure Jenny Steam Cleaner designed and built to do the biggest cleaning jobs, and also for heat-transfer uses, has been announced by Homestead Valve Manufacturing Co., Coraopolis, Pa. As a steam cleaner, the machine is said to clean grease, grime and dirt from machinery many times faster than similar equipment. Its 300 gallons per hour capacity will operate from one to four cleaning guns. Full operating pressure is reached within two minutes from a cold start.



In less than two minutes, it can be changed over for use as a heat generator, with heat output equivalent to a 25 horsepower boiler. Change is completed by loosening two bolts and reversing crank arm. Unit is then ready for such jobs as heating tanks of viscous fluids such as tar or molasses, thawing frozen cars and culverts, pasteurizing, sterilizing soil, etc.

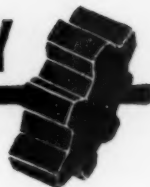
Heavy duty pressure Jenny is made in trailer mounted, portable, and stationary models. Standard equipment on all models includes one $\frac{1}{2}$ inch Hypower Cleaning Gun, one 25 foot length each of $\frac{1}{2}$ inch and $\frac{3}{4}$ inch vapor hose, and a choice of either gasoline engine or one-horsepower electric motor. Weighing approximately 1600 pounds, the unit measures 48 inches in width by 44 inches in height, and varies in length from 78 inches to 132 inches, depending upon the model.

Oxygen Humidifier

The two-way saturation feature of the new Ohio-Heidbrink oxygen humidifier insures maintenance of high humidity throughout the entire range of gas flow. The unit, supplied with oxygen administration apparatus and oropharyngeal catheter, is manufactured by the Ohio Chemical & Surgical Equipment Co., Madison, Wis.

The gas passing through the unit is first transformed into fog through jet atomization, then the fog is bubbled through several inches of water to increase the saturation. Accidental overfilling of the jar and the resulting danger of water be-

NEW SAFETY EQUIPMENT FOR INDUSTRY



Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

ing blown into the catheter are prevented by a new safety device—a displacement chamber which automatically limits the amount of water present in the jar at the time of filling. Excess water overflows as the chamber is inserted, and the remaining water then subsides to the proper level. The humidified oxygen is deflected down through a baffle system at the top of the displacement chamber, thus preventing any bubbles from reaching the supply tube. A pressure relief valve and an inlet filter are additional safety devices. The safety system allows operation of the unit for 48 hours at 4 liters per minute flow without refilling.

One model especially designed for cylinder mounting utilizes a two-stage adjustable-pressure reducing regulator with a gauge to register cylinder pressure. The second model is a wall-type assembly with a needle valve to regulate the flow from a central oxygen-piping system. The new humidifier assembly is also adaptable for supplementary use with oxygen masks, tents, and infant hoods.

Grinding Wheel Guard

A new Electro-Lock safety shield for grinding wheels has been developed by the Junkin Safety Appliance Co., Inc., 10th & Hill Sts., Louisville, Ky. It is both an illuminating safety shield and a machine control. As a safety shield it permits the operator to see the work clearly and at the same time protects his eyes and face from sparks, flying chips and emery dust. As a machine control it will not permit the grinder to be started when the movable shatter-proof glass safety shield is not in a completely protective position.



In the shield's design are incorporated several features such as convex "bulls-eye" lenses which focus the shield's lights directly on the point of operation. Mercury switches control both electrical circuits to

the shield's two lights and to the starting switch. Movement of the shield allows it to be placed in the exact and best position for the individual operator. The shield once installed becomes an integral part of the grinder and must be down in a completely positive position before the operator can start his work. Shields are available for both 110 and 220 volt circuits.

Saw Guard

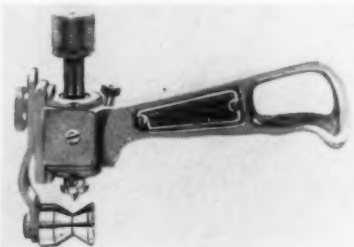
Laminated Sheet Products Corp., 259 A St., Boston 10, Mass., announces a new transparent guard for circular saws of 8 to 20 inches diameter made of acrylic plastic Plexiglas. The guard is furnished in two styles—Type A for stock of not more than three-inch thickness, and the double-pivoted Type B for thicker stock. A pin arrangement allows the guard to be held in a vertical position, for adjustment or changing of blades, yet ready to be lowered instantly.



Light weight of the shatter-resistant plastic and free pivoting of the mounting make the guard self-adjusting to work of any height. The guard is designed for spreader mounting, but is sold without a spreader because most users prefer to adapt the mounting to their own requirements. If a spreader is undesirable, mounting can be made from above or from the side.

Cable Stripper

A newly designed cable stripper for stripping the sheath from lead, armored, rubber, plastic and other kinds of cable is being made by the Taca Cable Stripper Manufacturing Co., 1623 Compton Ave., Los Angeles 21, Calif.



The yoke and roller swivel arrangement permits either circumferential or straight

cuts to be made at any predetermined point on the cable. The entire operation being accomplished with one hand. Section of sheath from center of cable or at the ends for terminals are safely and easily removed without injury to the wires.

The strippers are made in several models to meet the stripping requirements for the various kinds of cable. Weight approximately 7 ounces for small size to 10 ounces for the larger size.

Rolling Scaffold

A new sectional-type aluminum rolling scaffold is announced by Patent Scaffolding Co., Inc., 38-21 12th St., Long Island City 1, N. Y.

Light, easy to erect and neat in appearance, the aluminum scaffold is suitable for many types of overhead and sidewall work such as painting, cleaning, building maintenance and installing and repairing lighting fixtures. The scaffold is offered in two

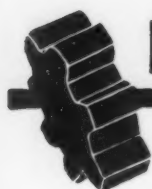


types—stairway type and ladder type. All parts of both types, except casters and platforms, are made of light, durable aluminum alloy. Scaffolds are supplied in one or more sections, with guard rails. The bottom section, including non-elevating casters, is 7¼ feet from ground to first platform. Each additional section is 6½ feet high. Base dimensions are 4½ by 6 feet. Two types of 5-inch steel casters are available—a non-elevating type and an adjustable type with a steel screw providing additional height.

Frames for intermediate sections slip over a sprocket in the lower section. This joint is secured by a hinged pin for extra safety. A spring lock is used to secure horizontal members quickly and safely.

Burn Treatment

Davis Emergency Equipment Co., Inc., 45 Halleck St., Newark 4, N. J., announces that Americaine, a first-aid jelly ointment



NEW SAFETY EQUIPMENT FOR INDUSTRY

Further information on these new products and equipment may be obtained by writing direct to the manufacturer. It will help in identifying the product to mention this announcement.

for burns, is now available in unit packaging to fit the D-carton interchangeable unit system of first aid. Americaine was designed to overcome the problem of a painlessly removable, water soluble jelly ointment, and to provide antiseptic, local anesthesia, and air exclusion. Benzocaine acts quickly to deaden pain over a relatively long period of time. Antiseptic is effected by the presence of oxyquinoline benzoate. Other uses for the burn treatment are for skin irritations, insect bites, poison ivy and creosote burns.

Traffic Line Markers

Meili-Blumberg Corp., New Holstein, Wis., is introducing a new line of street, highway and industrial markers, including the Super 10 self-contained, self-propelled



highway marker, powered by a Wisconsin Model TF engine, for striping all types of traffic lines. The Super 4 self-propelled safety-line street marker and the No. 5 safety-line marker, electric or gas driven, are for street or industrial plant striping, or spray painting. The new line enables Meili-Blumberg to supply a marker for every type of striping or spray painting job.

Bandage

Universal Sports Products, Akron, Ohio, announces the new Universal Bandage recommended for all injuries and is especially effective for sprains and wrappings on any member of the body. This self-sealing elastic bandage molds itself to any contour. Being porous, the air penetrates the wound and allows it to heal quickly. The bandage makes a neat, compact covering that does not stick to hair or skin and leaves no marks on the skin when removed. Water does not harm its adhesion. The bandage is sterilized and boxed as a unit in various lengths and widths.

Step Ladder

Louisville Metal Products Co., Inc., 1101 W. Oak St., Louisville, Ky., announces a new aluminum step ladder constructed with .064 inch thick 52S-H34 aluminum alloy. Available in standard sizes of 4, 6, 8, 10 and 12 feet. Pail shelf is omitted on the four foot size and included on all others.

Heavy ridges in steps assure non-skid footing. Thick fibre insulating blocks on all floor contact points. Hardware, including external braces, is made of heavy gauge cadmium steel for greater strength at stress points.

Water Cooler

Specially designed for use in potentially combustible atmospheres, is a new self-contained drinking water cooler manufactured by Temprite Products Corp., 31 Piquette, Detroit 2, Mich.

The cooler may be installed with safety, it is claimed, in customarily restricted areas, such as paint and chemical plants, refineries, collieries, grain processing plants, etc. Design of the cooler makes it impossible for any operating mechanism to generate static electricity, nor can the electrical system produce open sparks, which could cause an explosion in certain atmospheres.



Compressor and motor are hermetically sealed, and compressor terminal box, relay, thermostat control, and all electrical wiring and fittings are enclosed in approved, explosion-proof housings and conduit. A water cooled condenser increases the unit's water cooling efficiency. Outside water pressure variations of as much as 20 to 85 pounds have no effect, it is said, on the ability of the cooler to deliver a smooth, even flow of drinking water. Spurtling and splashing are prevented with the help of an automatic water flow regulator.

A new foot pedal flow control, offered as optional equipment, is a unique feature in the fact that it is applied to work in conjunction with the finger tip flow control located on the stainless steel top, although both finger tip control and foot pedal operate independently of each other.

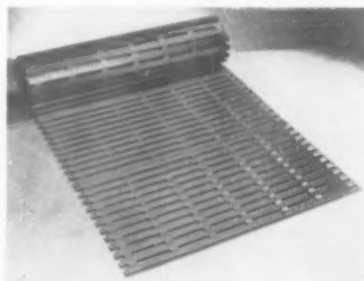
Fluorescent Lamp Disposal

Laduby Co., Inc., P. O. Box 1123, New Haven 5, Conn., announces the Laduby Fluor-o-lamp disposal for destroying burned

out fluorescent lamps. This device grinds lamps to tiny pieces under water. It disposes of 100 lamps in about 10 minutes. Refuse can be carried away in a bucket. It uses about 12 gallons of water and operates on 110 volt current.

Floor Mat

A new type of floor mat marketed under the trade name of Evertred is announced by American Mat Corp., 1724 Adams St., Toledo 2, Ohio. The mat is constructed of vinyl plastic links woven on a rust-resisting spring steel wire network. The mat affords safety underfoot through the special design of the links. One side of each link is slightly corrugated to affect a non-slip surface even when the mat is used in shower



rooms and pools. An additional safety factor is provided in the non-trip beveled nosing. The other side of the links is ridged to afford a mat surface that effects good dirt removal. The mat will not absorb soil, discolor with use or age, nor lose any of its color brilliancy. Non-porous and non-absorbent, the plastic is greaseproof and can be used even where oily conditions would ordinarily quickly destroy rubber mats.

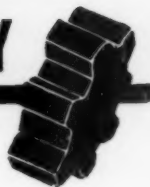
Available with links in any of five colors—green, red, brown, white and black—a mat can be had in any desired pattern. The mats are available in widths up to five feet and in any desired length.

Mobile Step Ladder

A new mobile step ladder is being produced by the Ballymore Co., 3 S. Roberts Road, Bryn Mawr, Pa. The automatic safety feature is effective and simple, for although the ladder is mounted on ball-bearing castors for easy movement, the moment a person steps on the ladder, automatically the rubber tipped legs come in contact with the floor, preventing rolling action and possible fall. Stock rooms, parts storage, filing departments and maintenance crews have proved its practicability.

The ladders are made in standard sizes from 1 to 6 steps out of aluminum finished steel. The frame is 3/4-inch steel tubing and the step plates of non-slip reinforced

NEW SAFETY EQUIPMENT FOR INDUSTRY



Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.



expanded steel are electrically welded in one sturdy unit. Handrails are optional on the ladders having from 3 to 6 steps and the removable steel mesh basket, which saves many trips, is optional on all models.

Boot Dryer

The Mann Engineering Co., 429 Penn Ave., Pittsburgh 22, Pa., has developed a device which reduces the time required to dry the inside of boots. Marketed under the name "Boot-Vent" this unit offers the added advantage of keeping boots in good shape when not in use. It holds the boots straight and prevents them from cracking and wrinkling.



Made of light, corrosion-resistant aluminum, the "Boot-Vent" consists of two stiff plates—the leg piece and the foot piece—which are hinged together. The assembly is arranged so that when the unit is put into the boot, the foot piece will slide out into the foot of the boot and the tapered leg piece will hold the boot open. Once inserted, the device provides a partition within the boot which permits air circulation. Heat from the sun or any kind of heater will warm the air in front of the partition and set up an air movement which accelerates the drying process.

The "Boot-Vent" comes in pairs and is designed for use in all boots, sizes 8 to 12.

Power Sweeper

A new type, vacuum-equipped power sweeper designed for high-speed industrial sweeping has been developed by G. H. Tennant Co., 2550 N. Second St., Minneapolis 11, Minn. Though less than 29 inches wide, the machine is said to have an exceptional sweeping capacity—over 43,500 sq. ft. per hour. It is operated by one man.

Extra clean sweeping results from use of a combination brush-and-vacuum system. A 24 inch wide brush revolves inside a sealed-to-floor compartment, hurls dirt and litter into an enclosed built-in "floating" type hopper. At the same time the vacuum fan draws dust into a heavy fabric bag. The hopper automatically compensates for irregular floor surfaces and bulky debris.



A 2-speed transmission gives the sweeper a wide operating range, with speeds up to 8 m.p.h. for open areas; and as low as 2 m.p.h. in narrow aisles and crowded areas. Since brush and vacuum fan are powered directly from the 4.4 h.p. air-cooled engine, soilage pick-up is said to be as efficient at 2 m.p.h. as at 8 m.p.h. A reverse gear adds to maneuverability.

To begin sweeping, the operator simply lowers the brush with a foot pedal, shifts to high or low, and presses the accelerator pedal. A centrifugal-type automatic clutch engages smoothly when the engine reaches a preset speed. The sweeper is equipped with front wheel automotive-type steering, both foot and parking brakes, and sealed ball and roller bearings throughout. Various types of brushes are available. A rotary side sweeping brush for sweeping flush with walls, machines, under guard rails, etc., is offered as an accessory.

Reflector Bulb

A new 300-watt weather-proof incandescent reflector lamp suitable for outdoor lighting applications is announced by Sylvania Electric Products, Inc., 500 Fifth Ave., New York. The new R-40 (designating a reflector bulb 5 inches in diameter) lamp is enclosed in a heat-resistant glass bulb which absorbs the thermal shocks caused by rain, snow, insects, oil and other elements. According to Sylvania engineers, there is no restriction on the burning posi-

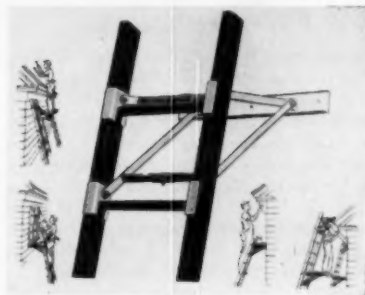
tion of the lamp, which has a rated average life of 1000 hours, although its resistance to thermal shock is somewhat better when operated in a base-up position.

Operating on 115, 120 and 125 volts, this reflector flood light has a mogul screw base and is designed for use where 150-watt PAR-38 projector lamps do not furnish sufficient illumination. With a number of lampholders made especially for the mogul base reflector type lamp now available, the new bulbs can be mounted either singly or in clusters, allowing a wide range of light output from one grouping to meet virtually every lighting requirement.

Ladder Bracket

The rail type Steadfast offset ladder bracket manufactured by Steadfast Equipment Co., 57 Wheeler Ave., Pleasantville, N. Y., embodies new safety features.

The bracket is designed to offset ladder rails free from working areas. The brackets, when used in pairs, make a scaffold support. The scaffold arm is always level, without adjustment, when the ladder is set at the proper pitch, and may be used on either the inside or outside slope of the ladder rails. These brackets will adjust



to any standard type ladder. A new type rail support transmit all loads to the rails instead of the rungs of ladders. The rail grips are slotted to align with ladder rungs. A division bar with set thumb screw secures locking rail grips in place. The bearing plate has an extended flange of 24 inches for steadiness.

Load Binder

An instrument of wide general appeal in heavy industries is the Nolan Load Binder and Puller-Jack, announced by The Nolan Co., Bowerston, Ohio. The tool can be quickly set up and used in any position—upright, sideways, or upside down, with lever pull away from load or toward it. The mechanism will not clog with dirt, gives positive action, and holds. A feature claimed is that it pulls for the entire chain length at one hold.

Two models are available, with capacities up to 5 tons.

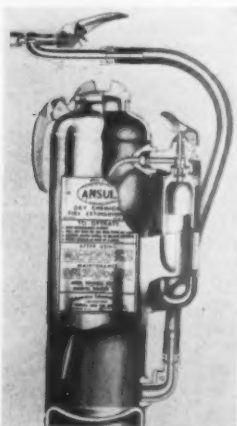


NEW SAFETY EQUIPMENT FOR INDUSTRY

Further information on these new products and equipment may be obtained by writing direct to the manufacturer. It will help in identifying the product to mention this announcement.

Fire Extinguisher

An improved model dry chemical fire extinguisher, said to be completely water-tight, has just been introduced by Ansul Chemical Co., Marinette, Wis. The company reports the improved unit, the Ansul Model B extinguisher, is more rugged, more dependable and easier to maintain than its predecessor, the Model A extinguisher, incorporation of 12 new design features has been announced. Chief among



these are the nozzle and cartridge receiver. Specially designed seals inside the nozzle and receiver have made these two vital parts water-tight. Other changes in the extinguisher are new threaded hose connections, new cartridge guard finger grip and redesigned carrying handle. Performance has been improved by these changes and maintenance and recharging have been simplified. The Model B extinguisher is available in 20 and 30 pound sizes.

Luminescent Striping

Designed for employees whose job entails working in dimly lighted areas or on



highways with no illumination, the Milburn Co., 3244 E. Woodbridge St., Detroit 7, Mich., has announced that all types of their Ply-Garb protective clothing can now be had with luminescent striping to reflect the light of approaching vehicles or moving equipment. Utility company employees, railroad yardmen, police and fire departments whose emergency work often is done at night should find this feature of importance.

News Items

Mine Safety Appliances Co., Pittsburgh, announces the opening of a new and larger warehouse to serve eastern New York State and all of Connecticut. The two-story building, located at 5-45 Forty-Ninth Avenue, Long Island City, N. Y., also will house the New York City headquarters of Mine Safety Appliances Co.

A large stock will be carried in the warehouse. The building contains approximately 6000 square feet of floor space. H. J. Segrave is manager of New York City district. The Albany territory will also be served by this new warehouse.

James J. Jackson has been appointed by the Pyrene Manufacturing Co. as sales representative to cover Tennessee, Arkansas and Mississippi. Jackson was district manager for the St. Louis Terminal Warehouse Company prior to joining Pyrene, fire extinguishing manufacturers.

Simplification of the corporate structure of Air Reduction Co., Inc., in a move to consolidate activities and increase efficiency of operations, has been approved by the Board of Directors. The ten new divisions of Air Reduction and their activities are as follows: welding equipment and compressed gases—Air Reduction Sales Company, Air Reduction Pacific Company, and Air Reduction Magnolia Company; medical—Ohio Chemical & Surgical Equipment Co., Ohio Chemical Pacific Company, and Hospital Supply & Watters Laboratories; calcium carbide—National Carbide Company; dry ice—Pure Carbonic Company; export-import—Aircor Company International; and the Aircor Equipment Manufacturing Division.

The American Industrial Safety Equipment Co. will move its manufacturing facilities and offices to 3500 Lakeside Ave., Cleveland 14, Ohio, from 847 Lexington Ave., Brooklyn 21, N. Y. The new location in Cleveland will enable the company to make over-night shipment to practically any point east of the Mississippi River. The company is moving to a building with facilities designed specially for the manufacture of protective equipment.

The Burdett Oxygen Co., Cleveland, announces with deep regret the passing of Robert Jaskulek on January 6 of this year. Mr. Jaskulek, in his contacts with welding engineers, had a large number of friends throughout the Ohio territory. He was a member of the Board of Directors and senior salesman for over 27 years for Burdett Oxygen Co.

E. N. Luckey, well-known in the industrial safety field, has been appointed general sales manager of Dockson Corporation, 3839 Wabash Ave., Detroit, Mich. For ten years prior to 1942 Mr. Luckey was salesman for Dockson Corporation, and until rejoining this company, he operated his own business, Industrial Safety Equipment Co., Baltimore, Md.

James H. Childs, Jr., sales manager of H. Childs & Co., Inc., Pittsburgh, has announced that two new representatives have joined the Iron Age Safety Shoe staff.

Robert D. Burns is covering the New England states and New York City area. He is a graduate of Boston College. Previous to joining Iron Age, Mr. Burns was employed in a sales capacity by a large manufacturer of men's shoes. His headquarters will be 39 Stone St., Saugus, Mass.

Iron Age will be represented in the states of Texas, Oklahoma, Louisiana, and Arkansas by G. L. Stevens, Jr. Mr. Stevens has been employed for the past 4½ years by Dow Chemical Co. as safety engineer in their Freeport, Texas, plant. Previous to that he was associated with several shoe companies. Mr. Steven's address is Box 243, Velasco, Texas.

Mine Safety Appliances Co., Pittsburgh, has established an International Division to coordinate the activities of its subsidiaries in Canada, South Africa and Great Britain and to continue the activities of the company's present Export Department.

C. M. Donahue will be manager of the new division, in addition to his present duties as Manager of the Mining Division. H. E. Redenbaugh will be assistant manager of the International Division.

Retirement of C. B. Robinson, vice president of the Wyandotte Chemicals Corp., in charge of the J. B. Ford Division, is announced. Mr. Robinson will continue to serve Wyandotte as a sales consultant. He joined the J. B. Ford Co. in 1917, working his way up until he became President of the J. B. Ford Sales Co. in 1929. In 1943, when the company was made a division of Wyandotte, he became vice president of the parent organization.

TRADE PUBLICATIONS

in the Safety Field

These trade publications will help you to keep up-to-the-minute on new products and developments in industrial health and safety equipment. They are free and will be sent by manufacturers without obligation to readers of NATIONAL SAFETY NEWS who are responsible for this work. Send in the coupon below checked for the publications you desire. Please make your requests promptly.



1. "Hard Protection": A booklet showing hard safety hats and their accessories—winter hoods and lining, face shields and chin straps. Hats are made of tough alloy and of laminated bakelite. B. F. McDonald Co.

2. Automatic Centering Reels: Circular SEE describing standard automatic centering reels for holding punch press coils from 300 to 6,000 pounds. In both plain and motor driven types, the automatic centering mechanism enables the operator to load a new coil easily and quickly. F. J. Littell Machine Co.

3. "The Use of Dustube Collectors in the Manufacture of Ceramics": Bulletin 252 presents various applications such as salvaging of enamel frit, ventilation of enamel spray booths, and the control of dust in the manufacture of silica brick. American Wheelabrator & Equipment Corp.

4. "Service Floors for Industries and Institutions": A bulletin dealing with the problems of resurfacing service floors of all types. It outlines the general types of materials for renewing old floors and the conditions under which each type of material should be considered. United Laboratories, Inc.

5. Portelator: Bulletin P-50 illustrates various styles of portable elevating tables for use in lifting and transporting heavy tools or materials, and the technique of stock positioning as a means of cutting production costs and reducing industrial injuries. The Hamilton Tool Co.

6. "Everything in Safety": A 46-page catalog of personal protection equipment and industrial safety devices that covers respiratory devices, eye protection, hats, gloves, carboy pumps, drum pumps and miscellaneous industrial safety equipment for use in industries, mines and utilities. General Scientific Equipment Co.

7. Explosion-Proof Motors: For persons interested in explosion-proof motors from $\frac{3}{4}$ to 125 HP, Bulletin C-130 illustrates three

classes of explosion-proof motors. Particular emphasis is placed on those of Class I, made for application in locations where gasoline, oil, naphtha, alcohols, acetone, lacquer solvent vapors and natural gas are present. Reliance Electric and Engineering Co.

8. Metal Marking Outfit: A circular on a marking outfit for serial numbering, name or initial stamping, stock coding and part numbering for clear, even marking on brass, aluminum, copper, steel and other materials. Sizes of characters from $\frac{1}{8}$ " to $\frac{1}{4}$ " can be used in the same holder, increasing its versatility. M. E. Cunningham Co.

9. Punch Press Guards: A folder on punch press guards directly connected with the ram of the press. This feature insures a complete sweep of the guard when the ram descends, as a result the operator's hands are swept out of the danger zone when the die space closes. The press can be fed without hindrance. D. & M. Guard Co.

10. Aluminum Ladders: An illustrated catalog showing step, platform, light and heavy duty extension ladders of aluminum and includes aluminum planks and stages, extension trestles and hanging utility ladders. Louisville Metal Products Co., Inc.

11. Concrete Floor Coating: A crystalline substance when dissolved in water and flushed over new or old concrete floors, penetrates the pores, contacts the free lime forming a glass-like crystal which cannot be re-dissolved, is described in release J-1-50. Floors are sealed, dusting is eliminated and surface resists deterioration from water penetration, oil, acids and grease. Flex-rock Co.

12. "Materials Handling—At the Machine": A 16-page booklet shows how proper positioning of materials saves unnecessary handling in production operations. It illustrates 12 different types for welding, sheet feeding, automatic material positioner, elevating tables, lift trucks, positioners of

bench and floor type, steel strapping and for tube, paper roll and steel coils. Lyon-Raymond Corp.

13. "A Move in the Right Direction." A circular illustrating a collapsible hand truck that is indispensable wherever space is at a premium. It carries up to 500 lbs., yet folds away to 9" in height for easy storage, and takes the strain out of moving heavy objects. Business Equipment Specialists.

14. Tools: Pocket tool guide 39 contains tools for linemen, electricians and mechanics. Pliers, splicing clamps, linemen's climbers, belts, safety straps, leather goods, tool pockets, tackles, hand lines, furnaces and torches are among the many items illustrated. Mathias Klein & Sons.

15. Unit Dust Collectors: Bulletin No. 28M on unit dust collectors that deliver dust laden air to centrifugal pre-cleaner where material is removed. Clean air may be returned to room or vented to outside. Filters are easily accessible and motor and exhauster is isolated from dust. The Kirk & Blum Mfg. Co.

16. Safety Guard: A folder illustrating a punch press guard in which the operator controls the closing of the guard with the foot pedal. With the guard in position, a shaft falls in place locking the guard. Closing of the guard automatically causes the press to be tripped, and the guard remains closed until the dies have re-opened. James-ton Safety Guard Corp.

17. "You Can Now Treat Asphyxia More Effectively." A brochure that shows how you can do a better resuscitation job in cases of smoke suffocation, gas poisoning, electric shock, drug poisoning, carbon monoxide, coma and drowning. Stephenson Corp.

18. Forged Steel Tools: Booklet 49-1 contains various forged steel tools for use throughout industry that includes pipe wrenches, monkey wrenches, pipe cutters and wheels, strap wrenches, pipe vises and sawing vise sets. Trimont Mfg. Co.

NATIONAL SAFETY NEWS

APRIL, 1950

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